

In the
Indiana Court of Appeals

No. 23A-EX-00881

LONE OAK SOLAR ENERGY LLC,

Appellant (Petitioner below),

v.

INDIANA UTILITY REGULATORY
COMMISSION, INDIANA OFFICE OF
UTILITY CONSUMER COUNSELOR,
and MADISON COUNTY BOARD OF
ZONING APPEALS and MADISON
COUNTY BOARD OF COMMISSION-
ERS,

Appellees (Administrative Agency,
Statutory Party and Respondents
below).

Appeal from the Indiana Utility Regu-
latory Commission

Cause No. 45793

The Hon. Jim Huston, Chairman
The Hon. Sarah Freeman,
The Hon. Stefanie Krevda,
The Hon. David Veleta,
The Hon. David Ziegner,
Commissioners
The Hon. Ann Pagonis, Administrative
Law Judge

**APPELLANT’S VERIFIED MOTION
TO STAY APPEAL AND HOLD BRIEFING IN ABEYANCE**

Appellant Lone Oak Solar Energy LLC (“Lone Oak”) respectfully requests to hold this briefing in abeyance and in support states:

1. This appeal relates to issues surrounding the construction and operation of Lone Oak’s 120 Megawatt solar facility in Madison County, Indiana (the “Project”).
2. Lone Oak provides the following chronological discussion of the various, interrelated regulatory and trial court proceedings concerning the Project to assist this Court in assessing Lone Oak’s request to pause this appeal.
3. On October 29, 2019, in another matter before the IURC (Cause No. 45255), Lone Oak received a “declination of jurisdiction” (in part) from the Commission pursuant to Ind. Code § 8-1-2.5-1 et seq. for its proposed construction of the Project. As

part of its decision, the Commission found that Lone Oak is a “public utility” within the meaning of Ind. Code §§ 8-1-8.5-1, 8-1-2.5-2, and 8-1-2-1 and an “energy utility” within the meaning of Ind. Code § 8-1-2.5-2. The Facility is also a “utility” within the meaning of Ind. Code § 8-1-2-1.

4. Meanwhile, on May 28, 2019, in another proceeding, and over objections from a group of remonstrators (the “Remonstrators”), the Madison County Board of Zoning Appeals (“BZA”) granted Lone Oak a “special use” authorization for the Project under the County’s Zoning Ordinance (the “Special Use Decision”). The Remonstrators then appealed the Special Use Decision. Until this Special Use Decision litigation was finally resolved when the Indiana Supreme Court denied transfer of the case on October 21, 2021, Lone Oak could not reach financial closing or break ground on the Project.¹

5. Once the challenge to the Special Use Decision was finally decided in its favor, and COVID pandemic-related supply chain issues were alleviated to some degree, Lone Oak petitioned the BZA to modify only one of several conditions the BZA placed on the previously granted Special Use Decision (“Condition #18”). BZA Condition #18 required the Project to be complete and operational by December 31, 2023, which is now no longer possible given the litigation and pandemic related Project delays, despite Lone Oak’s best efforts.

6. However, three years after the BZA’s initial zoning approval, the political winds in the County had changed. On June 28, 2022, the BZA denied Lone Oak’s request

¹ See Burton v. Bd. of Zoning Appeals of Madison Cnty., 174 N.E.3d 202, 207-209 (Ind. Ct. App. 2021), trans. denied.

for extension of the commercial operating date to 2025 (the “Extension Decision”). Given the Extension Decision effectively killed the Project, on July 28, 2022, Lone Oak filed a timely administrative appeal of the Extension Decision in the trial court (Grant County Circuit Court Cause No. 27C01-2207-PL-000052) (the “Zoning Appeal”).

7. On October 28, 2022, Lone Oak filed a Verified Complaint before the IURC, docketed as Cause No. 45793 (“Lone Oak I”). The Complaint requested the IURC void the BZA’s imposition of Condition #18 under the County’s solar energy zoning ordinance as unreasonable and outside the County’s authority. Lone Oak argued that ultimately, the Commission – and not the County – has authority to govern Lone Oak’s construction and operation on terms and conditions reasonably necessary for the transaction of Lone Oak’s business and consistent with the public convenience and interest. See Ind. Code § 8-1-2-101.

8. On November 11, 2022, Lone Oak and the County filed a Joint Motion to Stay the Zoning Appeal in the Grant County Circuit Court. Supra ¶6. Lone Oak and the County agreed that the Lone Oak I Complaint, once adjudicated, could have resolved some or all of the issues set forth in the Zoning Appeal because the IURC has jurisdiction over certain county ordinances pursuant to Ind. Code § 8-1-2-101 and Duke Energy Ind., LLC v. Town of Avon, 82 N.E.3d 319, 325 (Ind. Ct. App. 2017).

9. On November 17, 2023, the County performed a jurisdictional volte-face and requested the dismissal of Lone Oak I, a case it had already agreed belonged at the

Commission. This is reflective of the County's true intent—to kill the project simply because those in power in the County no longer support solar development. The trial court then granted its stay on November 21, 2022.

10. On December 5, 2022, the County's Motion to Dismiss had been fully briefed. Instead of issuing a ruling on that motion, the Commission issued a docket entry on December 8, 2022, instructing the parties to prefile direct and rebuttal testimony (as is the Commission's normal procedural practice in highly technical utility regulatory cases), and set an evidentiary hearing for March 13, 2023.

11. On January 27, 2023, many of the same Remonstrators who appealed the BZA decision in 2019, supra ¶4, petitioned to intervene in Lone Oak I, supra ¶7, and Lone Oak objected. On January 30, 2023, the County filed a Motion to Strike Lone Oak's pre-filed testimony. Lone Oak also responded that the County's Motion to Strike should be denied.

12. As the evidentiary hearing date neared, counsel collectively sought guidance from the administrative law judge on how to prepare, given there were multiple procedural and substantive motions outstanding. As a result, on February 23, 2023, the Commission in Loan Oak I sua sponte continued the evidentiary hearing to May 8, 2023, without ruling on any of the pending motions.

13. On March 22, 2023, the Commission granted the County's Motion to Dismiss Lone Oak I without a hearing. The Commission reasoned that absent the agency reasserting its jurisdiction pursuant to Ind. Code § 8-1-2.5-7, jurisdiction is vested in the trial court. (Order at 3.) This Order is a final Commission decision in Lone Oak I. Since

the Order dismissed the case, the Order is therefore appealable under Ind. Code § 8-1-3-1 and Indiana Appellate Rules 2(H) and 9(I). On April 21, 2023, Lone Oak timely filed with this Court its notice of appeal of the Lone Oak I Dismissal Order, which is this appeal.

14. On April 26, 2023, Lone Oak filed a new Petition with the Commission, requesting the IURC reassert jurisdiction, in part, pursuant to IC 8-1-2.5-7, and to authorize and establish the conditions consistent with Ind. Code §§8-1-2-101 and -101.2 governing the construction, maintenance and operation of the Project, specifically the dates by which Lone Oak must commence construction and achieve commercial operation (“Lone Oak II”). In particular, Lone Oak requested the Commission reassert jurisdiction to the extent necessary for the Commission to consider the issues presented in Lone Oak I. Notably, the law provides that the Commission may reassert its jurisdiction sua sponte, and does not require that the utility make such request. See IC 8-1-2.5-7(1) and Citizens Action Coal. v. Ind. Statewide Ass'n of Rural Elec. Coops., 693 N.E.2d 1324, 1330 (Ind. Ct. App. 1998). The Lone Oak II Petition is attached as **Exhibit 1**.

ARGUMENT

1. The Project has been treated like a legal and political “hot potato” for the last four years. Lone Oak has gone through two county zoning proceedings, three state regulatory proceedings, and two appeals, one of which has already gone all the way to the Indiana Supreme Court. Some of those proceedings are still pending. The critical issue – which should have prevented the Commission from outright dismissing Lone Oak I – is that the Commission has primary subject matter jurisdiction over the regulation of public utilities in Indiana. “The commission...shall have the power, and it shall be its duty, to

enforce the provisions of this act, as well as *all other laws*, relating to utilities.” Ind. Code § 8-1-2-115 (emphasis added). Lone Oak also alleges that the County’s regulation violates Indiana Code § 8-1-2-101.2 by having the effect of prohibiting Lone Oak from furnishing utility service to its customers based on the energy source used. “When all of the issues presented” in a complaint “fall within the exclusive jurisdiction of the relevant administrative or regulatory agency,” our trial courts lack “subject matter jurisdiction over th[e] case.” Austin Lakes Joint Venture v. Avon Utils., Inc., 648 N.E.2d 641, 646 n.5 (Ind. 1995).

2. Indiana public utilities historically have not been subject to local zoning regulation because “not in my back yard” claims would frequently block the benefits that public utility service brings to the entire community. “When local regulation attempts to control an activity in which the whole state or a large segment thereof is interested, local regulation must fall.” Graham Farms, Inc. v. Indianapolis Power & Light Co., 233 N.E.2d 656, 666 (Ind. 1968). Accordingly, local government *may not* adopt any ordinance which has the effect of prohibiting or of unreasonably restricting the use of solar energy systems other than for the preservation or protection of the public health and safety. Ind. Code § 36-7-2-8.

3. If the Commission reasserts its jurisdiction in Lone Oak II, that will permit the IURC to make a determination of these issues on the merits. The interests of judicial economy and respect for the administrative agency here weigh strongly in favor of staying this appeal pending the IURC’s resolution of the Lone Oak II case requesting reassertion of IURC jurisdiction. Staying the appeal will impose no risk of prejudice to any party.

WHEREFORE, Lone Oak respectfully requests that the Court stay this appeal of Loan Oak I, pending the IURC's resolution of the petition for reassertion of jurisdiction in Lone Oak II.

Respectfully submitted,

/s/ **Bryan H. Babb**

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VERIFICATION

Pursuant to Appellate Rule 34(F), I affirm under the penalty for perjury that the foregoing representations are true of my own personal knowledge, information and belief.

/s/ **Kristina Kern Wheeler**

Kristina Kern Wheeler

CERTIFICATE OF SERVICE

I certify that on May 8 2023, I electronically filed the foregoing document using the Indiana E-Filing System (IEFS). I also certify that on May 8, 2023 the foregoing document was served upon the following person(s) via IEFS:

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STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION OF LONE)
OAK SOLAR ENERGY LLC REQUESTING THE)
COMMISSION REASSERT JURISEDICITION, IN)
PART, PURSUANT TO IND. CODE § 8-1-2.5-7 AND)
FIX REASONABLE CONDITIONS FOR THE) CAUSE NO. 45883
CONSTRUCTION AND OPERATION OF LONE)
OAK’S SOLAR FACILITY PURSUANT TO IND.)
CODE §§ 8-1-2-61, 8-1-2-69, 8-1-2-101, 8-1-2-101.2,)
8-1-2-115, 36-7-2-8 AND RELATED STATUTES)

VERIFIED PETITION

I. Introduction.

Lone Oak Solar Energy LLC (“Lone Oak” or “Petitioner”), by counsel, hereby petitions the Indiana Utility Regulatory Commission (“IURC” or “Commission”) to reassert jurisdiction, in part, pursuant to IC 8-1-2.5-7, and to authorize and establish the conditions consistent with Indiana Code §§8-1-2-101 and -101.2 governing the construction, maintenance and operation of Lone Oak’s solar facility, specifically the dates by which Lone Oak must commence construction and achieve commercial operation of the solar facility. Lone Oak respectfully requests the Commission reassert jurisdiction to the extent necessary for the Commission to consider the issues presented in Lone Oak’s complaint in Cause No. 45793 (hereinafter referred to as “Lone Oak I”). The law provides that the Commission may reassert its jurisdiction *sua sponte*. See IC 8-1-2.5-7(1) and *Citizens Action Coal. v. Ind. Statewide Ass'n of Rural Elec. Coops.*, 693 N.E.2d 1324, 1330 (Ind. Ct. App. 1998).

Nonetheless, the March 22, 2023 Order of the Commission in Lone Oak I found that absent the Commission reasserting its jurisdiction pursuant to Ind. Code § 8-1-2.5-7, jurisdiction is vested in the trial court. Order at 3. Therefore, Petitioner specifically requests the Commission reassert jurisdiction in this case (hereinafter referred to as “Lone Oak II”), for the limited purpose of allowing the Commission to make a determination on the merits regarding whether Madison County’s

regulation is just, reasonable, and consistent with the statutes and case law, as requested in Lone Oak I. On April 21, 2023, Lone Oak filed a Notice of Appeal of Lone Oak I with the Indiana Court of Appeals. Petitioner anticipates requesting a stay of that appeal while Lone Oak II is pending. Petitioner incorporates and attaches its Amended Complaint and the Prefiled Testimony of Lone Oak and the County from Lone Oak I, as Exhibits in this Cause (Lone Oak II).

In order to consider the issues, Petitioner specifically requests the Commission reassert jurisdiction pursuant to Indiana Code §§8-1-2-61, 8-1-2-69, 8-1-2-101, 8-1-2-101.2 and related statutes. The Commission has the inherent authority in its broad grant of legislative powers, “to regulate that which is necessary to effectuate the regulatory scheme outlined in the relevant statute.” *Northern Ind. Public Serv. Co. v. Citizens Action Coalition of Ind.*, 548 N.E.2d 153, 158 (Ind. 1989). Thus, since the legislature granted the Commission authority to regulate the operations and service of electric utilities, the Commission may grant the relief requested and resolve the issues in Lone Oak I and II. *See e.g., Statewide*, 693 N.E.2d at 329; and *Duke Energy Ind., LLC v. Town of Avon, Ind.*, 82 N.E.3d 319 (Ind. Ct. App. 2017).

Here, Madison County’s regulations have the effect of barring the construction of Lone Oak’s solar facility despite the fact that the IURC has approved construction and established there is a public need for the energy. The Commission’s Order declining jurisdiction over Lone Oak speaks to its approval of a three year timeline for grid interconnection and commercial operation. Final Order, Cause No. 45455 at p. 10. The Commission’s December 8, 2022 Docket Entry in Cause No. 45783 (at p. 1) states:

The Presiding Officers, having considered Complainant’s request that a preliminary hearing be set for the purposes of considering Complainant’s request for a stay of the expiration of Lone Oak’s authority granted by the Commission in Cause No. 45255, find such request is premature and therefore, it is denied at this time. The Commission’s Order in Cause No. 45255 did not establish an expiration date of the Commission’s declination of jurisdiction over Lone Oak and its construction of the Madison County solar generation facility at issue in this proceeding. Instead, the Order established, pursuant to Ind. Code § 8-1-2.5-7, certain conditions under

which the Commission *may* proceed to terminate its declination of jurisdiction upon notice to Complainant. Following such notice, Ind. Code § 8-1-2.5-7 provides the Complainant with 15 days to formally request a hearing. The Commission has not provided any notice to Complainant of its intent to terminate its declination of jurisdiction. Therefore, it is premature for Complainant to request a stay of termination.

Therefore, since no such Order has been issued, Lone Oak’s Commission approval remains in effect.

In its original approval of the Project on May 28, 2019, Madison County imposed conflicting deadlines for Lone Oak’s commencement and of construction and commercial operation dates (the “Dates”), which it has refused to extend – thereby making compliance with Madison County’s regulation impossible due to forces beyond Lone Oak’s control including litigation by remonstrators and pandemic-related force majeure events.¹ The County has no legitimate governmental interest in governing the Dates, especially where the Commission has appropriately addressed the operational timeline to ensure that the Dates align with the need for energy. As such, the County lacks jurisdiction over the Dates. Lone Oak cannot create, consent to, or waive jurisdiction where that jurisdiction does not exist. Even if a utility voluntarily submits to a local zoning regulation, if that regulation (or in whole or in part) is outside the local government’s authority, the utility cannot be held to it. *See e.g., Bradley v. Bankert*, 616 N.E.2d 18 (Ind. Ct. App. 1993), *trans. denied*; and *Howell v. Ind.-American Water Co.*, 668 N.E.2d 1272, 1275 (Ind. Ct. App. 1996). “When all of the

¹ The Madison County Solar Energy Systems Ordinance provides that Special Use shall be null and void for ground-mounted solar projects if construction has not begun within three (3) years of the approval date, and an extension of the Special use has not been approved. Section 6.29, Ordinance p. 3 (Exhibit A to Lone Oak I Amended Complaint). Once the appellate challenge to the Special Use Decision was finally decided in its favor, and COVID pandemic-related supply chain issues were alleviated to some degree, Lone Oak petitioned the BZA to modify only one of several conditions the BZA placed on the previously granted Special Use Decision (the “Condition”). Condition #18 required the Project to be complete and operational by December 31, 2023 (Exhibit C to Lone Oak I Amended Complaint), which is now no longer possible given the litigation and pandemic related Project delays, despite Lone Oak’s best efforts. On June 28, 2022, the BZA unreasonably denied this request for extension of the commercial operating date to 2025 (Exhibit D to Lone Oak I Amended Complaint). The County Solar Energy Systems Ordinance also requires Lone Oak to obtain an Improvement Location Permit (“ILP”) prior to beginning construction. The Ordinance provides that in order to obtain an ILP, a Professional Engineer must stamp and record a decommissioning plan; County Drainage Board approval; Driveway Permit (for road connections and/or road cuts); equipment specifications and final site plan; and topographic and hydrology study of the Project site.

issues presented” in a complaint “fall within the exclusive jurisdiction of the relevant administrative or regulatory agency,” our trial courts lack “subject matter jurisdiction over th[e] case.” *Austin Lakes Joint Venture v. Avon Utils., Inc.*, 648 N.E.2d 641, 646 n.5 (Ind. 1995).

Ultimately, the Commission – and not the County – has the authority to establish the Dates governing Lone Oak’s construction and operation on terms and conditions reasonably necessary for the transaction of Lone Oak’s business and consistent with the public convenience or interest. Indiana Code § 8-1-2-101. Madison County’s regulation violates Indiana Code § 8-1-2-101.2 by having the effect of prohibiting Lone Oak from furnishing utility service to its customers based on the energy source. “When local regulation attempts to control an activity in which the whole state or a large segment thereof is interested, local regulation must fall.” *Graham Farms, Inc. v. Indianapolis Power & Light Co.*, 233 N.E.2d 656, 666 (Ind. 1968).

II. Petitioner’s Corporate and Regulated Status.

Lone Oak is a limited liability company organized and existing under the laws of the state of Delaware and authorized to do business in Indiana. Petitioner’s principal place of business is located at One South Wacker Drive, Suite 1800, Chicago, Illinois 60606. Lone Oak is a wholly owned subsidiary of Invenergy Solar Development North America LLC (“ISDNA”), which is a wholly owned subsidiary of Invenergy Renewables LLC. Lone Oak, ISDNA, and Invenergy Renewables LLC are affiliates of Invenergy LLC (“Invenergy”), an Illinois limited liability company. Invenergy specializes in the development of large-scale renewable and other clean energy generation and storage facilities worldwide and is headquartered in Chicago, Illinois.

On October 29, 2019 in Cause No. 45255, the Commission found that Lone Oak is a public utility and Petitioner received a “declination of jurisdiction” and related approvals for its proposed construction of a 120 megawatt (“MW”) solar generation facility in Madison County, Indiana (“Project” or “Facility”). The power output from the Facility will be sold exclusively into the

wholesale electric market. Petitioner's rates for power will be subject to Federal Energy Regulatory Commission ("FERC") regulation, as it is classified under federal law as an Exempt Wholesale Generator. Lone Oak is a "public utility" within the meaning of Ind. Code §§ 8-1-8.5-1, 8-1-2.5-2, and 8-1-2-1 and an "energy utility" within the meaning of Ind. Code § 8-1-2.5-2. The Facility is also a "utility" within the meaning of Ind. Code § 8-1-2-1.

III. Relevant Facts.

Lone Oak seeks to develop a solar farm on approximately 800 leased acres of land in Madison County. In March 2019, over objections from a group of remonstrators (the "Remonstrators"), the County Board of Zoning Appeals ("BZA") ultimately granted Lone Oak a "special use" authorization for the Project under the Ordinance (the "Special Use Decision"). Until this litigation was finally resolved when the Indiana Supreme Court denied transfer of the case on October 21, 2021, Lone Oak could not reach financial closing or break ground on the Project.²

Once the challenge to the Special Use Decision was finally decided in its favor, and COVID pandemic-related supply chain issues were alleviated to some degree, Lone Oak petitioned the BZA to modify only one of several conditions the BZA placed on the previously granted Special Use Decision (the "Condition"). Condition #18 required the Project to be complete and operational by December 31, 2023, which is now no longer possible given the litigation and pandemic related Project delays, despite Lone Oak's best efforts.

Lone Oak has all the necessary state, federal, and PJM approvals needed to commence construction or operation; and continues to have the financial, technical and managerial ability to construct, own and operate the project. The global supply chain shortage resulting in part from the COVID pandemic, running contemporaneously with the litigation, caused unexpected delay, but did not affect the need for the Lone Oak Project, which the Commission's Final Order recognized. PJM

² See *Burton v. Bd. of Zoning Appeals of Madison Cnty.*, 174 N.E.3d 202, 207–09 (Ind. Ct. App. 2021), *transfer denied*, 176 N.E.3d 443 (Ind. 2021).

has completed its Feasibility, System Impact, and Facilities Studies for the Project. All that stands in the way of the Lone Oak Project becoming a reality now is the refusal of the Madison County BZA to extend its Special Use Condition related to the Project's commercial operation date.

On August 26, 2022, Lone Oak filed an Amended Complaint with the Grant County Circuit Court, which claims that the Madison County BZA arbitrarily and capriciously denied Lone Oak's petition to modify the Condition without any rational basis. However, Lone Oak and the County *jointly requested* the trial court stay that proceeding, and that *Agreed Motion to Stay* was granted on November 16, 2022.³ It is disingenuous that the County would then turn around and request a dismissal of a case it had already agreed belonged at the Commission, and is reflective of the County's true intent—to kill the project simply because those in power in the County no longer support solar development.

In Lone Oak I, Lone Oak filed its request on October 28, 2022 in IURC Cause No. 45793 to stay the expiration of the Commission's order in Cause No. 42555 authorizing the construction of Lone Oak and declining jurisdiction in part. Lone Oak also requested that the Commission find the Madison County ordinance unreasonable in accordance with Indiana Code 8-1-2-101 and related statutes insofar as the ordinance imposed Dates that were impossible to achieve. On December 8, 2022, the Presiding Officers ruled it was premature for Lone Oak to request a stay of the Cause No. 42555 authorization because the Commission had not indicated an intent to reassert jurisdiction over Lone Oak. On November 19, 2022, Madison County moved to dismiss Lone Oak's request to invalidate the Madison County ordinance. The Commission granted Madison County's motion on March 22, 2023 on the grounds that the Commission had not reasserted jurisdiction over Lone Oak

³ See *Lone Oak Solar Energy LLC v. Bd. of Zoning Appeals of Madison Cnty.*, Case Number 27C01-2207-PL-000052, Grant Co. Circuit Court. E-docket: <https://public.courts.in.gov/mycase/#/vw/CaseSummary/eyJ2Ijp7IkNhc2VUub2tI6ImVLdkRJT2dPRGM1TWdCTE VQaURwLW15M3FxbHUta1F0ZXRXZam4zZzNfbkUxIiwuSGlkZVRvb2xiYXJzIjp0cnVILCJQQUxvZ28iOmZhbHN1 LCJTUkNUIjpuYWxfX0=>

pursuant to Indiana Code 8-1-2.5-7. It is evident that this situation also presents exactly the kind of “unreasonable and unjustly discriminatory” act and regulation in violation of law – i.e., the County’s effort to kill the subject project – that Indiana Code 8-1-2-69 is intended to redress.

IV. The Gauntlet of Local Zoning Approvals for Solar Projects in Indiana.

The Commission’s requirement that Independent Power Producers (“IPPs”) meet local zoning requirements when requesting alternative regulation means that IPP’s must contend with 92 Indiana county governments with 92 different sets of zoning standards for renewable energy projects. These standards vary widely from county to county, ranging from: renewable projects being totally or temporarily banned; to significant zoning requirements and conditions placed on projects, some of which have a reasonable and expected relationship to the protection of public health and safety, while some do not; to a complete lack of a county zoning ordinance. Several Indiana counties, including Madison County, have overreached their limited legal authority to govern public utility facilities by imposing conditions well beyond their legitimate government interests.

Lone Oak has acquired all of the land rights necessary to build the Project, and did not request any eminent domain authority. The Commission declined to exercise its jurisdiction over Lone Oak as a public utility, along with its construction, operation, and financing of the Project, except as specifically stated within its Order. The IURC further ordered that Lone Oak “shall not exercise an Indiana public utility’s rights, powers, and privileges of eminent domain and of exemption from local zoning, land use requirements, land use ordinances, and construction-related permits in the operation and construction of the Facility.” *In the Matter of the Petition by Lone Oak Solar Energy*, IURC Cause No. 45255 (Oct. 29, 2019), 2019 WL 5820560, at p. 11.

Lone Oak, and all other electric companies that serve the public directly or indirectly, are regulated in Indiana as public utilities. Ind. Code § 8-1-2-1. According to provisions of Title 8 of

the Indiana Code and related court decisions, public utilities in Indiana are *not* generally subject to local zoning authority. State and federal courts have long understood that local regulation of, and opposition to public utility projects on the basis of “Not in My Back Yard” claims, only serves to block the many public benefits that utility service provides to everyone.

V. Additional Local Requirements for Renewable Energy Projects Beyond Zoning Approvals.

Sometimes, local officials see renewable energy projects as an opportunity to obtain significant county funding from IPPs beyond tax revenue. For example, despite the general principle that government fees should bear some rational and reasonable relationship to actual costs, Vermillion County charges a \$50,000 application fee for solar projects.⁴ For comparison, other permit fees in Vermillion County range from \$25 for a special exception application, to \$1,600 for a commercial permit.⁵ In addition to obtaining millions in contributions for “economic development”, several other counties expect IPPs to pay over \$100,000 in legal fees for the establishment of a county-required economic development agreement (which tends to include boilerplate language that does not vary from county to county because it was drafted and marketed by one law firm to its local government clients). Counties generally prefer these economic development agreements because they do not have restricted uses like tax-based funds do. In order to obtain approval of required road use agreements, other counties require IPPs to pay for local road improvements that are completely unrelated, both in substance and location, to the renewable energy projects. This type of county overreach is precisely the subject of the recent complaint by Northern Indiana Public Service Company (“NIPSCO”) against Cass County, Indiana in Cause No. 45857.

Counties are also beginning to regulate detailed site planning for renewable energy projects, including technical, safety and interconnection standards for these facilities. Not only do local

⁴ See Vermillion County Solar Energy Amendment to the Vermillion County Zoning Ordinance, Ordinance #2020-15: <https://www.vermilliongov.us/wp-content/uploads/2021/02/Commercial-Solar-Energy-Amendment-2020-15.pdf>

⁵ <https://www.vermilliongov.us/wp-content/uploads/2021/02/Zoning-Improvement-Application-Fees.pdf>

governments lack any expertise on these subjects, they have improperly infringed on the authority over the construction and operation of electric generating plants in areas that are *solely* within the jurisdiction of state and federal government. Increasingly, IPPs are forced to accept unreasonable and arbitrary conditions and expenses in order to obtain local zoning approval. These benefits that counties “extract” from developers are not without consequence. They often cause delays and create barriers to entry. Ultimately, these costs are passed on by IPPs through wholesale market rates and contracts, raising the cost of electric service for all Hoosiers.

VI. The Commission's Findings that IPP's Must Meet All Local Zoning Requirements Has Evolved to Create Discriminatory and Over Reaching Local Regulation Over Renewable Projects.

IPPs have historically been treated differently than other types of electric utilities without a proper and sufficient basis in law for that disparate treatment. The public interest benefits and ultimate functions of IPPs are the same as that of traditional public utilities – i.e., directly or indirectly providing power to the public. Case law is well-settled that the location and use of public utilities’ facilities are not subject to local zoning regulations in Indiana, and Indiana law only gives authority to counties regarding utilities' use of the public rights-of-way, and zoning requirements must narrowly address only issues related to public health and safety. *See* Indiana Code § 8-1-2-101 and § 36-7-2-8. The Commission's findings that IPPs meet local zoning requirements and conditions that go far beyond these statutory limitations on local authority is unlawful.

Traditional Indiana electric utilities with monopoly service territories do not seek, and the IURC *does not require*, local zoning approvals for new generation and transmission projects built by those companies, even when those projects are also renewable generation or are approved for alternative regulatory treatment under Ind. Code ch. 8-1-2.5 (the “Alternative Regulation Statute”). Meanwhile, privately developed renewable energy projects like Lone Oak (which may supply or be sold to traditional electric utilities or sold into the wholesale markets), are also regulated by the

Commission as public utilities under the exact same statutory scheme. Holding IPPs to a different zoning standard than traditional public utilities is discriminatory.

There is nothing in the Alternative Regulation Statute that differentiates between IPPs and traditional retail load serving energy utilities. The Commission commonly grants requests to decline jurisdiction only after considering whether the location of a proposed facility is compatible with surrounding land uses by considering evidence of compliance with local zoning and land use requirements. Nothing in the Alternative Regulation Statute specifically allows or requires the Commission to consider local zoning compliance or compatibility with surrounding land use. The Alternative Regulation statute does not authorize the Commission to consider compliance with local zoning regulations, and Indiana Code § 8-1-8.5-5(b)(3) simply requires a Commission finding that that public convenience and necessity require or will require the facility's construction.

The Commission's past orders holding IPPs to local zoning standards do not create a legal precedent, and the IPPs' public utility status is an issue that has never been addressed by Indiana courts in recent appeals from BZA decisions on renewable development projects. Proponents of local zoning authority may argue that because IPPs are not "traditional utilities" that have the obligation to serve captive retail customers, it is appropriate for the Commission to require IPPs to meet local zoning requirements when asking for a declination of jurisdiction. However, the law does not distinguish in the definition of a utility between those that serve at retail and those that serve at wholesale. In fact, Indiana's definition of "utility" is the production, transmission, delivery, or furnishing of power, either directly or indirectly to the public, which means that an electric utility can serve at retail, at wholesale, or both.

The Indiana General Assembly has enacted four provisions establishing the scope of local government's legitimate interest to inform the Commission's approach on local zoning control over

solar project development – none of which support local regulation of the dates by which a solar project must commence construction or achieve commercial operation:

1. Ind. Code § 8-1-2-101. – Local government may establish the provisions under which a public utility may “occupy the areas along, under, upon and across the streets, highways, or other public property within such municipality or county.”
2. Ind. Code 8-1-2-101.2. - Local government may “operate and maintain the streets, highways, and other public property in the municipality or county for the safety of the traveling public and ... manage the public right-of-way or require by ordinance fair and reasonable compensation on a competitively neutral and nondiscriminatory basis for occupation of the public right-of-way on a nondiscriminatory basis....”
3. Ind. Code § 8-1-2-115. - “The commission...shall have the power, and it shall be its duty, to enforce the provisions of this act, as well as *all other laws*, relating to utilities.”
4. Ind. Code § 36-7-2-8. - Local government *may not* adopt any ordinance which has the effect of prohibiting or of unreasonably restricting the use of solar energy systems other than for the preservation or protection of the public health and safety.

Read together, Indiana law makes clear that the Commission is neither authorized nor required to subject partially regulated renewable IPP developers to overreaching local regulations that are not applied to “fully regulated” utilities. Regulators should either require *all* energy projects to receive local zoning approval, or require it for none of them. It simply does not make sense that a single county can have the ability to block an electric generation project that has been approved by state and federal regulators, and serves customer interests far beyond that county’s borders. Madison County officials may not lawfully impose arbitrary and capricious deadlines for the construction and operation of a power project, which has no bearing on the County’s legitimate government interests.

IPPs should not be treated differently when they are also indirectly serving the public as utilities, especially since IPPs frequently enter into build-transfer agreements and purchased power agreements that allow fully regulated utilities to meet their obligations to serve retail customers. It is arbitrary policy that a renewable generation project built by a utility serving at retail does not have to meet local zoning requirements, but a private developer building an identical project in the same

location for the benefit of that investor-owned, fully regulated utility and the public can be barred by local zoning from developing the project at all.

VII. Applicable State Statutes.

In 1913, the Shively-Spencer Act, which created the Public Service Commission (now the IURC), vested the state with the *sole authority* to regulate the operation of public utilities. In addition to the Alternative Regulatory Statute, for the limited purposes of resolving the issues in Lone Oak I, Petitioner requests the Commission reassert its jurisdiction, in part, pursuant to Indiana Code § 8-1-2.5-7 under the following statutes:

- Ind. Code § 8-1-2-101. Section 101 requires that the Commission set a hearing upon a complaint by a utility that a local government ordinance or determination is unreasonable. Section 101 also requires that the Commission set a hearing upon a Complaint by a utility that a local government ordinance or determination is unreasonable. The statute further states that if the Commission finds the contested ordinance or determination to be unreasonable, such ordinance or determination shall be void. *Id.*
- Ind. Code 8-1-2-101.2. Section 101.2(b), prohibits local governments from regulating utility service based upon the energy source used. The term “energy source” is defined as regulation related to either the method of generation or the fuel source. Ind. Code § 8-1-2-101.2(a)(1). County zoning ordinances which are solely based on whether a utility uses wind or solar as an energy source (versus coal, natural gas, steam, nuclear fusion, etc.), and prohibit a public utility from connecting to its customer (whether that “customer” is another utility, the wholesale market generally, or a private offtaker), violate this statute.
- Ind. Code § 8-1-2-115. Section 115 provides that “The commission...shall have the power, and it shall be its duty, to enforce the provisions of this act, as well as *all other laws*, relating to utilities.” The Indiana Court of Appeals has held that Section 101(a)(1) and Section 115 unambiguously establish exclusive jurisdiction in the IURC to hear a public utility’s complaint on the validity of a local government ordinance. *Duke Energy*, 82 N.E.3d at 325.
- Ind. Code § 8-1-2-54. Under Section 54, the IURC has jurisdiction to investigate, among other things, *any regulation, measurement, practice or act whatsoever* affecting or relating to the service of any public utility, or any service in connection therewith, is in any respect unreasonable, unsafe, insufficient or *unjustly discriminatory*, or that any service is inadequate or cannot be obtained.
- Ind. Code § 8-1-2-61. Since it has already been declared by the IURC to be a public utility, Lone Oak has the authority under Indiana law to file a complaint with the Commission under Section 61 “as to any matter affecting its own rates or service.”

- Ind. Code § 8-1-2-69. Under Section 69, if the Commission undertakes an investigation, it may fix just and reasonable measurements, regulations, acts, practices, or service to be furnished, imposed, observed, and followed in the future in lieu of those found to be unjust, unreasonable, unwholesome, unsanitary, unsafe, insufficient, preferential, unjustly discriminatory, inadequate and make such other order respecting such measurement, regulation, act, practice, or service as shall be just and reasonable. Here, the Commission has the authority to invalidate the Madison County Date requirements so that Lone Oak may construct and operate the solar facility.
- Ind. Code § 36-7-2-8. Given that Section 115 provides that the Commission may enforce all other laws related to public utilities, Indiana Code § 36-7-2-8 is also relevant. This law provides that a local government *may not* adopt any ordinance which has the effect of prohibiting or of unreasonably restricting the use of solar energy systems other than for the preservation or protection of the public health and safety.

VIII. Constitutional Claims.

Several state and federal constitutional provisions may also be applicable to this case, including but not limited to the following: the Indiana and federal Privileges and Immunities Clauses;⁶ the Indiana Constitutional prohibition on “Special Laws” regulating county business and requiring that “all laws must have general application and uniform operation throughout the state;”⁷ the state and federal constitutional prohibition on the takings of private property without just compensation;⁸ and the Commerce Clause of the U.S. Constitution.⁹ The Commerce Clause of the United States Constitution provides that “[t]he Congress shall have Power . . . [t]o regulate Commerce . . . among the several States.” U.S. Const. Art. 1, § 8. This constitutional language “also directly limits the power of the States to discriminate against interstate commerce.” *Wyoming v. Oklahoma*, 502 U.S. 437, 454 (1994).

This “negative” or “dormant” feature of the Commerce Clause” prohibits economic protectionism--that is, regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors.” *Id.* (internal citations omitted); *see also Gen. Motors Corp. v.*

⁶ Ind. Const. art. 1, § 23 and U.S. Const. amend. XIV, § 1.

⁷ Ind. Const. art. 4, § 22 [10] and Art. 4, § 23.

⁸ Ind. Const. art. 1, Section 21 and U.S. Const. amend. V and XIV.

⁹ U.S. Const. Art. 1, § 8.

Tracy, 519 U.S. 278, 287-288 (1997). Thus, any state regulatory or legislative mandate that favors traditional Indiana utilities over their out-of-state competitors by granting those traditional utilities eminent domain power and exceptions to local zoning regulation is a violation of the Dormant Commerce Clause.

The production and sale of electricity has long been held to be an activity in interstate commerce. Some of the Indiana General Assembly's previous efforts to protectively legislate Indiana's business interests over outside interests have failed under Commerce Clause scrutiny. An example was the passage of Ind. Code §§ 8-1-8.5, 8-1-8.7, and 8-1-8.8, which related to regulation of electric utilities and provided an economic benefit to utilities that used Indiana coal. The Indiana coal preference in these statutes was stricken, consistent with the earlier *Alliance for Clean Coal* series of decisions, which held that the incentives for utilities to use Indiana coal were "plainly protectionist," discriminated against interstate commerce, and violated the Commerce Clause.¹⁰

IX. Relief Requested.

There is not a "level playing field" for IPP renewable project development in Indiana. The result is an unjustly discriminatory approach to zoning requirements in Indiana. Utility-scale renewable energy projects provide electric service far beyond the territory of any given local zoning authority. Thus, local attempts to place special conditions on these generation projects are unreasonable and not in the public interest, because they potentially impair the service and reliability of the bulk power system on a regional basis.

Reassertion of the Commission's jurisdiction pursuant to Indiana Code 8-1-2.5-7 is supported by the factors informing the exercise or declination of Commission jurisdiction, as

¹⁰ *Alliance for Clean Coal v. Bayh*, 888 F.Supp. 924 (S.D. Ind. 1995), aff'd 72 F.3d 556 (7th Cir. 1995); *Gen. Motors Corp. v. Indianapolis Power & Light Co.*, 654 N.E.2d 752, 763-767 (Ind. Ct. App. 1995); *Citizens Action Coal. of Ind., Inc. v. PSI Energy, Inc.*, 894 N.E.2d 1055, 1069-70 (Ind. Ct. App. 2008).

established by Indiana Code 8-1-2.5-5. For purposes of ruling on Lone Oak's complaint, reassertion of jurisdiction is in the public interest. Here, the operating conditions and the jurisdiction asserted by Madison County render Commission jurisdiction necessary. If the Commission does not reassert jurisdiction over the Dates, Lone Oak will be barred from building the solar facility. The Commission's reassertion of jurisdiction will be beneficial for Lone Oak, its customers, and the state because Commission oversight is necessary in this instance to effectuate Lone Oak's ability to construct the solar facility the Commission has found is necessary and in the public interest. Without the reassertion of Commission jurisdiction, Lone Oak is inhibited from competing with other providers of functionally similar energy services, particularly where competing solar energy developments are underway in counties that do not impose the same impossible conditions on the Dates as Madison County.

The Alternative Regulation Statute does not require a public hearing in order for the Commission to reassert jurisdiction under IC 8-1-2.5-7. As noted above, the Exhibits included herein are the complete set of prefiled testimony in Lone Oak I. While the Commission dismissed Lone Oak I prior to the evidentiary hearing, this prefiled testimony constitutes the entirety of the case, as all pre-filing dates in Lone Oak I had passed. Therefore, Lone Oak is not requesting a public hearing pursuant to Ind. Code § 8-1-2.5-7 prior to the Commission reasserting its jurisdiction in the limited fashion requested in order for the Commission to rule on the merits of Lone Oak I. For administrative economy, Lone Oak is effectively asking for the Commission to consolidate in this Cause the question of whether the Dates County Ordinance should be void as unreasonable and outside the statutory authority of the County.

Lone Oak requests that the Commission:

- A. Issue a notice of the Commission's intent to reassert jurisdiction over Lone Oak for the limited purposes of ruling on the issues raised in this proceeding, recognizing that

Lone Oak waives herein its right to request a hearing before the Commission reasserts jurisdiction pursuant to IC 8-1-2.5-7;

- B. To the extent the Commission deems a hearing is necessary and in the public interest, expeditiously set this Petition for hearing;
- C. Enter an Order continuing to decline to exercise the Commission's jurisdiction over Lone Oak consistent in all other respects with the Commission's Order in Cause No.45255 except as necessary to rule on the issues in this proceeding; and
- D. Invalidate Madison County's ordinance provisions and BZA findings that require Lone Oak to commence construction and achieve commercial operation by the dates specified in the ordinance.

X. Counsel.

Counsel for Lone Oak in this matter duly authorized to accept service of papers in this Cause on behalf of Petitioner are:

Kristina Kern Wheeler, #20947-49A
Nikki Gray Shoultz, #16509-41
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Should the Commission find that it requires pre-filed testimony and an evidentiary hearing in this proceeding, Petitioner will file a proposed procedural schedule within thirty days of said Commission finding.

WHEREFORE, Lone Oak respectfully requests that the Commission exercise its jurisdiction pursuant to Ind. Code § 8-1-2.5-7 and related statutes as set forth herein and find and order the relief requested by Lone Oak.

Dated this 26th day of April, 2023.

Respectfully submitted,

A handwritten signature in blue ink that reads "Kristina Kern Wheeler". The signature is written in a cursive style and is positioned above a horizontal line.


Kristina Kern Wheeler, #20947-49A

Nikki Gray Shoultz, #16509-41

Bose McKinney & Evans LLP

VERIFICATION

I, Michael Kaplan, do hereby swear and affirm under penalties of perjury, that I have read the foregoing Verified Petition and that the representations set forth herein are true and correct to the best of my knowledge, information, and belief.

DocuSigned by:

EB4B0326408A4CC
Michael Kaplan, Senior Vice President
Invenergy LLC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was delivered electronically or by certified U.S. mail this 26th day of April, 2023 to the following:

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STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE COMPLAINT OF LONE)
OAK SOLAR ENERGY LLC AGAINST THE)
BOARD OF COMMISSIONERS AND BOARD OF)
ZONING APPEALS OF MADISON COUNTY,)
INDIANA FOR A DETERMINATION UNDER)
INDIANA CODE §§ 8-1-2-54 THROUGH -67,)
8-1-2-101, 8-1-2-115, AND RELATED STATUTES)
REGARDING THE UNREASONABLENESS OF THE)
DECISION OF THE BOARD OF ZONING APPEALS)
UNDER THE COUNTY’S SOLAR ENERGY)
ZONING ORDINANCE)

CAUSE NO. 45793

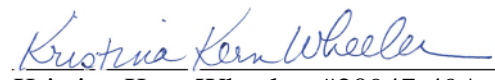
RESPONDENTS: MADISON COUNTY BOARD OF)
ZONING APPEALS AND MADISON COUNTY)
BOARD OF COMMISSIONERS)

SUBMISSION OF COMPLAINANT’S PREFILED VERIFIED DIRECT TESTIMONY
OF MICHAEL R. KAPLAN

Lone Oak Solar Energy LLC (“Lone Oak” or “Complainant”), by counsel, hereby submits
the Prefiled Verified Direct Testimony of Michael R. Kaplan.

Dated this 9th day of December, 2022.

Respectfully submitted,



Kristina Kern Wheeler, #20947-49A
Nikki Gray Shoultz, #16509-41
Bose McKinney & Evans LLP

1 **PREFILED VERIFIED DIRECT TESTIMONY OF MICHAEL R. KAPLAN**

2 **ON BEHALF OF LONE OAK SOLAR LLC**

3 **Q1. PLEASE STATE YOUR NAME AND ON WHOSE BEHALF YOU ARE**
4 **TESTIFYING.**

5 A. My name is Michael R. Kaplan, and I am testifying on behalf of Lone Oak Solar Energy
6 LLC (“Complainant” or “Lone Oak”). My business address is One South Wacker Drive,
7 Suite 1800, Chicago, Illinois 60606.

8 **Q2. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

9 A. I am employed by Invenergy LLC as Senior Vice President. I am also a project officer of
10 Lone Oak. I am familiar with Invenergy’s activities to date to develop the Lone Oak
11 Project, including the Indiana Utility Regulatory Commission’s (“IURC’s” or
12 “Commission’s”) Final Order in Cause No. 45255 (“Order”) granting Lone Oak’s request
13 for declination of jurisdiction over the construction of Lone Oak’s solar project in Madison
14 County, Indiana. *See* Exhibit B to Amended Complaint. The Commission’s Order found
15 that Lone Oak is a public utility and declined to exercise its jurisdiction over Lone Oak as a
16 public utility, along with its construction, operation, and financing of the Project, except as
17 specifically stated within its Order.

18 **Q3. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
19 **BACKGROUND.**

20 A. I have an MBA in Entrepreneurship and Change Management from DePaul University and
21 a BA in Sociology and Political Science from The University of Kansas. I have been Senior
22 Vice President at Invenergy since June 2021. Prior to that, I served at Invenergy as Vice
23 President of Renewable Development (2016-2021); Director Business Development

1 (2015-2016); Senior Manager of Business Development (2014-2015); and a Wind Energy
2 Developer (2010-2012). I also worked at Nordex Group, a wind turbine manufacturer, as
3 Senior Project Development Manager (2012-2014); as Marketing Director and Project
4 Manager at Green World Ventures (2009-2010); as Managing Director (2007-2009) and
5 Director of Marketing (2005-2009) at EW Ventures; and as an Investment Analyst and
6 Project Manager at MARC Construction and Development (2000- 2005).

7 **Q4. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

8 A. My testimony supports Lone Oak’s request for the Commission to find Madison County
9 Solar Energy Ordinance No. 2017-BC-0-01 passed by the Madison County Board of
10 Commissioners (“Board”) (the “Ordinance”) and the decisions thereunder by the Madison
11 County Board of Zoning Appeals (“BZA”) are unreasonable and void pursuant to Ind.
12 Code § 8-1-2-101 and related statutes. A copy of the Ordinance is attached as Exhibit A
13 to the Amended Complaint. The Amended Complaint is attached Attachment MRK-1.

14 **Q5. WHAT IS THE CORPORATE STRUCTURE OF THE LONE OAK SOLAR**
15 **PROJECT?**

16 A. Lone Oak, an affiliate of Invenergy LLC, seeks to develop a 120 megawatt (“MW”) solar
17 generation project (“Project” or “Facility”) on approximately 800 leased acres of land in
18 Madison County, Indiana. The power output from the Facility will be sold exclusively into
19 the wholesale electric market. Complainant’s rates for power will be subject to Federal Energy
20 Regulatory Commission (“FERC”) regulation, as it is classified under federal law as an
21 Exempt Wholesale Generator. Lone Oak is a “public utility” within the meaning of Ind. Code
22 §§ 8-1-8.5-1 and 8-1-2-1 and an “energy utility” within the meaning of Ind. Code § 8-1-2.5-
23 2. The Facility is also a “utility” within the meaning of Ind. Code § 8-1-2-1.

1 **Q6. PLEASE DESCRIBE LONE OAK’S EFFORTS TO MEET LOCAL ZONING**
2 **REQUIREMENTS.**

3 A. In March 2019, over objections from a group of remonstrators (the “Remonstrators”), the
4 Madison County, Indiana Board of Zoning Appeals (“BZA”) ultimately granted Lone Oak
5 a “special use” authorization for the Project under the Ordinance (the “Special Use
6 Decision”). The Remonstrators filed petitions for judicial review challenging the Special
7 Use Decision, which the trial court denied on November 2, 2020. The Remonstrators then
8 appealed to the Indiana Court of Appeals, and failed again.

9 **Q7. WHAT IMPACT DID THIS LITIGATION OF THE BZA DECISION HAVE ON**
10 **THE FINANCIAL CLOSING AND CONSTRUCTION TIMELINE FOR THE**
11 **LONE OAK PROJECT?**

12 A. Until this litigation was finally resolved when the Indiana Supreme Court denied transfer
13 of the case on October 21, 2021, Lone Oak could not reach financial closing or break
14 ground on the Project.¹ Financing companies simply will not take an economic risk on the
15 Project while litigation is pending. Meanwhile, several other industry and economic factors
16 also affected the Project.

17 **Q8. WHAT WERE THOSE FACTORS?**

18 A. The vast majority of solar cells used in the U.S. are imported from other countries. Under
19 Section 203 of the Trade Act of 1974, 19 U.S.C. § 2253, if the U.S. International Trade
20 Commission transmits a report containing an affirmative finding of serious injury, the
21 President shall take all appropriate and feasible action within his power that he determines

¹ See *Burton v. Bd. of Zoning Appeals of Madison Cnty.*, 174 N.E.3d 202, 207–09 (Ind. Ct. App. 2021), *transfer denied*, 176 N.E.3d 443 (Ind. 2021).

1 will facilitate efforts by the domestic industry in question to make a positive adjustment to
2 import competition and provide greater economic and social benefits than costs. The U.S.
3 Trade Representative (“USTR”) leads an interagency body in recommending to the
4 President on the action to take. On January 23, 2018, the USTR announced that the
5 President had approved recommendations to provide relief to U.S. manufacturers and
6 impose safeguard tariffs on imported solar cells and modules. There is also a pending
7 United States Department of Commerce investigation into anti-dumping and anti-
8 circumvention of such tariffs by Cambodia, Malaysia, Thailand, and Vietnam--countries
9 that allegedly use parts made in China that otherwise would be subject to tariffs. There is
10 also a pending federal review of compliance with new forced labor prevention rules. In
11 June 2022, the President took executive action to advance the deployment of solar in the
12 United States by easing import duties² for a 24-month period for solar cells and modules
13 imported from the countries under investigation and invoked the Defense Production Act
14 to expand domestic production of solar modules.³ These trade actions, along with general
15 global supply chain and labor unavailability as a result of the COVID-19 pandemic, as well
16 as regulatory delays,⁴ have caused serious repercussions in the solar industry nationwide.
17 These factors caused Lone Oak Project delays beyond Invenergy’s control.

² <https://www.whitehouse.gov/briefing-room/statements-releases/2022/06/06/declaration-of-emergency-and-authorization-for-temporary-extensions-of-time-and-duty-free-importation-of-solar-cells-and-modules-from-southeast-asia/>

³ <https://www.whitehouse.gov/briefing-room/statements-releases/2022/06/06/memorandum-on-presidential-determination-pursuant-to-section-303-of-the-defense-production-act-of-1950-as-amended-on-solar-photovoltaic-modules-and-module-components/>

⁴ <https://pv-magazine-usa.com/2022/02/03/pjm-flooded-with-interconnection-requests-proposes-two-year-review-pause/>

1 **Q9. ARE THESE DELAYS IN SOLAR PROJECT DEVELOPMENT INDUSTRY-**
2 **WIDE?**

3 A. The entire energy industry is facing these kinds of delays. The U.S. Energy Information
4 Administration (“EIA”) released its June 2022 Preliminary Monthly Electric Generator
5 Inventory, which indicates that less than half of the utility-scale projects the industry
6 planned to install in the first six months of 2022 were actually built.⁵ From January through
7 June 2022, this EIA report indicates that about 20% of planned utility-scale solar
8 photovoltaic capacity was delayed. Various factors could cause delays, including broad
9 economic factors, such as supply chain constraints, labor shortages, and high prices of
10 components, and factors specific to electric generator projects, such as obtaining permits
11 or testing equipment.

12 Other Indiana investor-owned utilities are citing similar delays. For example, Northern Indiana
13 Public Service Company (“NIPSCO”) recently announced delays in the previously planned
14 closures of its coal-fired units at the Schafer Generating Station, due to delays they are
15 experiencing in getting replacement solar generation online.⁶ NIPSCO’s recent testimony
16 in its new electric rate case also indicates that it is experiencing delays with the following
17 projects being developed by independent power producers under build-transfer and
18 purchased power agreements: Gibson Solar (Capital Dynamics); Cavalry Solar (NextEra);
19 Dunn’s Bridge II Solar (NextEra); Fairbanks Solar (Invenergy); Green River Solar
20 (NextEra); Brickyard Solar (NextEra); and Greensboro Solar (NextEra).⁷

⁵<https://www.eia.gov/todayinenergy/detail.php?id=53400#:~:text=In%20most%20cases%2C%20reported%20delays,obtaining%20permits%20or%20testing%20equipment>.

⁶ <https://www.indystar.com/story/news/2022/05/26/nipscos-planned-move-coal-solar-delayed-2-plants/9799621002/>

⁷ Prefiled Verified Testimony of Andrew S. Campbell, Cause No. 45722, pp. 14-16.

1 **Q10. DOES LONE OAK HAVE ALL OF THE OTHER NECESSARY FEDERAL AND**
2 **STATE APPROVALS FOR THE PROJECT?**

3 A. Lone Oak has all the necessary state, federal, and PJM Interconnection (“PJM”) approvals
4 needed to commence construction or operation; and continues to have the financial,
5 technical and managerial ability to construct, own and operate the project. The global
6 supply chain shortage resulting in part from the COVID pandemic, running
7 contemporaneously with the litigation, caused unexpected delay, but did not affect the need
8 for the Lone Oak Project, which the Commission’s Order recognized. PJM has completed
9 its Feasibility, System Impact, and Facilities Studies for the Project. As reflected in its 2nd
10 Quarter 2022 report to the IURC in Cause No. 45255, Lone Oak executed the ISA and posted
11 \$1,486,380 in cash as security on July 5, 2022 as financial assurance for the transmission
12 investment needed for the Project. These Second and Third Quarter 2022 reports are included
13 as Attachment MRK-2.

14 **Q11. WHY DID LONE OAK RETURN TO THE MADISON COUNTY BZA SEEKING**
15 **A MODIFICATION OF ITS PRIOR APPROVAL OF THE PROJECT?**

16 A. Once the challenge to the Special Use Decision was finally decided in its favor, and COVID
17 pandemic-related supply chain issues were alleviated to some degree, Lone Oak petitioned
18 the BZA to modify only one of several conditions the BZA placed on the previously
19 granted Special Use Decision (the “Condition”). Condition #19 required the Project to be
20 complete and operational by December 31, 2023, which is now no longer possible given
21 the litigation and pandemic related Project delays, despite Lone Oak’s best efforts. In
22 summary, the litigation, pandemic, interconnection queue, supply chain and equipment
23 delays have imposed a barrier to meeting Condition #19. These circumstances were entirely

1 outside of Lone Oak’s control, and thus Lone Oak filed its Complaint in this Cause on
2 October 28, 2022, requesting the Commission review the Madison County Solar Ordinance
3 pursuant to Ind. Code § 8-1-2-101 and related statutes.

4 **Q12. WHAT IS THE COMMISSION’S ROLE IN REVIEWING THE COUNTY’S**
5 **SOLAR ORDINANCE?**

6 A. Indiana Code § 8-1-2-101(a), provides that the Commission has jurisdiction to determine
7 the reasonableness of the County’s Ordinance. Also, under Indiana Code § 8-1-2-101.2(b),
8 local governments are prohibited from regulating utility service based upon the energy
9 source used:

10 **A municipal council or county executive does not have the power to**
11 **enact any code, ordinance, or land use regulation that would prohibit**
12 **or have the effect of prohibiting, or to otherwise regulate in a manner**
13 **that would prohibit or have the effect of prohibiting . . . a public utility**
14 **. . . from furnishing utility service to a utility customer; or . . . a public utility**
15 **. . . from: (A) purchasing; (B) using; or (C) connecting or reconnecting**
16 **to; a utility service; based on the energy source of the utility service.**
17 (emphasis added.)
18

19 Under Section 101, “energy source” is defined as regulation related to either the method of
20 generation or the fuel source. Ind. Code § 8-1-2-101.2(a)(1). While I am not an attorney, I
21 believe that ordinances which prohibit a public utility from connecting to its customer
22 (whether that customer is another utility, the wholesale market generally, or a private
23 offtaker), violate this statute.

24 Also, Indiana Code § 36-7-2-8 provides that a local government *may not* adopt any
25 ordinance which has the effect of prohibiting or of unreasonably restricting the use of solar
26 energy systems other than for the preservation or protection of the public health and safety.
27 That Section also provides that “it is the policy of this state to promote and encourage the
28 use of solar energy systems and to remove obstacles to their use.” Unlike local zoning

1 authorities and trial courts, the IURC has the unique subject matter expertise to evaluate
2 the impacts of local regulation of electric utilities on Indiana's energy supply, including
3 the potential technical impossibility and unreasonableness of the BZA's December 31,
4 2023 commercial operation deadline.

5 **Q13. DOES THE COUNTY ORDINANCE SPECIFICALLY ADDRESS**
6 **COMMERCIAL OPERATION DATES?**

7 A. Yes, the Ordinance provides that a Special Use approval for a large-scale energy project
8 shall be null and void if construction has not begun within three (3) years of the approval
9 date, and an extension of the Special use has not been approved. *See* Exhibit A to
10 Complaint, Ordinance Article 6.29 A.2. In its original 2019 BZA application, Lone Oak
11 requested and received a variance from the three (3) year construction deadline. *See* Exhibit
12 C to Amended Complaint, 2019 BZA Findings, at p. 8.

13 **Q14. WHY SHOULD THE COMMISSION INTERVENE IN A LOCAL LAND USE**
14 **DECISION?**

15 A. The Madison County BZA's actions have gone far beyond its interests in protecting public
16 health and safety and local land use, and have the distinct ability to curtail much needed
17 energy capacity and supply in obstruction of the wider public interest. The Shively-Spencer
18 Act, which is codified in Title 8 of the Indiana Code and created the Public Service
19 Commission in 1913 (now the IURC), vested the state with the *sole authority* to regulate
20 the *operation* of public utilities. "When local regulation attempts to control an activity in
21 which the whole state or a large segment thereof is interested, local regulation must fall."
22 *Graham Farms*, 233 N.E.2d at 666. As discussed in more detail in the direct testimony of
23 Hannah Pawelczyk (Petitioner's Exhibit 3), the BZA denied Lone Oak's request for an

1 extension of the commercial operation date by considering testimony from Remonstrators
2 that had no material relationship to the issue at hand. While I was not present for this BZA
3 hearing, I did submit an affidavit that was placed into evidence in the BZA record. My
4 affidavit is included as Attachment MRK-3.

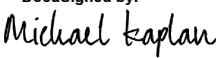
5 While Invenergy has every intention of meeting all local legal requirements, the
6 Madison County BZA has gone a step beyond its authority. Local regulations that protect
7 the public health and safety should be upheld, such as road use agreements and
8 requirements for project decommissioning. Here, the BZA is simply creating a barrier to
9 entry for solar projects in the county that promotes the interests of the individual over the
10 interests of the general public in the provision of utility service. Nonetheless, Lone Oak
11 still intends to meet all of the conditions of its Special Use (except for the commercial
12 operation date), as well as its contractual obligations to landowners and the County itself.
13 If local zoning restrictions continue to pose barriers for renewable energy projects, the
14 result will be that Indiana's electricity supply may have to come from outside Indiana or
15 through projects built solely by Indiana retail load-serving utilities – both of which could
16 result in higher rates to Hoosiers than if independent generation development is permitted.
17 The Commission should intervene here because it is tasked to balance the scope of local
18 utility regulation against the greater state concern with ensuring adequate and reliable
19 power supply and transmission.

20 **Q15. DOES THIS CONCLUDE YOUR TESTIMONY?**

21 A. Yes.

VERIFICATION

I affirm under the penalties of perjury that the foregoing Prefiled Verified Direct Testimony is true to the best of my knowledge, information and belief as of the date here filed.

DocuSigned by:

EB4B6326408A4CC...

Michael R. Kaplan


CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was delivered electronically or by certified U.S. mail this 9th day of December, 2022 to the following:

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Kristina Kern Wheeler
BOSE MCKINNEY & EVANS LLP

FILED
November 28, 2022
INDIANA UTILITY
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION


**IN THE MATTER OF THE COMPLAINT OF LONE)
OAK SOLAR ENERGY LLC AGAINST THE)
BOARD OF COMMISSIONERS AND BOARD OF)
ZONING APPEALS OF MADISON COUNTY,)
INDIANA FOR A DETERMINATION UNDER)
INDIANA CODE §§ 8-1-2-54 THROUGH -67,)
8-1-2-101, 8-1-2-115, AND RELATED STATUTES)
REGARDING THE UNREASONABLENESS OF THE)
DECISION OF THE BOARD OF ZONING APPEALS)
UNDER THE COUNTY’S SOLAR ENERGY)
ZONING ORDINANCE)
)
**RESPONDENTS: MADISON COUNTY BOARD OF)
ZONING APPEALS AND MADISON COUNTY)
BOARD OF COMMISSIONERS)****

CAUSE NO. 45793

SUBMISSION OF AMENDED VERIFIED COMPLAINT

Lone Oak Solar Energy LLC (“Lone Oak” or “Complainant”), by counsel, hereby submits the attached Amended Verified Complaint. This amendment adds Indiana Code § 8-1-2-101.2 to the list of relevant state statutes on page 6. No other changes were made.

Respectfully submitted,




Kristina Kern Wheeler, #20947-49A
Nikki Gray Shoultz, #16509-41
Bose McKinney & Evans LLP

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was delivered electronically
or by certified U.S. mail this 28th day of November, 2022 to the following:

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Kristina Kern Wheeler
BOSE MCKINNEY & EVANS LLP

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE COMPLAINT OF LONE)
OAK SOLAR ENERGY LLC AGAINST THE)
BOARD OF COMMISSIONERS AND BOARD OF)
ZONING APPEALS OF MADISON COUNTY,)
INDIANA FOR A DETERMINATION UNDER)
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REGARDING THE UNREASONABLENESS OF THE)
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UNDER THE COUNTY’S SOLAR ENERGY)
ZONING ORDINANCE)
)
RESPONDENTS: MADISON COUNTY BOARD OF)
ZONING APPEALS AND MADISON COUNTY)
BOARD OF COMMISSIONERS)

CAUSE NO. 45793

AMENDED VERIFIED COMPLAINT

Lone Oak Solar Energy LLC (“Lone Oak” or “Complainant”), by counsel, hereby petitions the Indiana Utility Regulatory Commission (“IURC” or “Commission”) to find Madison County Solar Energy Ordinance No. 2017-BC-0-01 passed by the Madison County Board of Commissioners (“Board”) (the “Ordinance”) and the decisions thereunder by the Madison County Board of Zoning Appeals (“BZA”) are unreasonable pursuant to Ind. Code § 8-1-2-101 and related statutes. A copy of the Ordinance is attached as Exhibit A.

I. Complainant’s Corporate and Regulated Status.

Lone Oak is a limited liability company organized and existing under the laws of the state of Delaware and authorized to do business in Indiana. Complainant’s principal place of business is located at One South Wacker Drive, Suite 1800, Chicago, Illinois 60606. Lone Oak is a wholly owned subsidiary of Invenergy Solar Development North America LLC (“ISDNA”), which is a

wholly owned subsidiary of Invenergy Renewables LLC. Lone Oak, ISDNA, and Invenergy Renewables LLC are affiliates of Invenergy LLC (“Invenergy”), an Illinois limited liability company. Invenergy specializes in the development of large-scale renewable and other clean energy generation and storage facilities worldwide and is headquartered in Chicago, Illinois.

On October 29, 2019 in Cause No. 45255, the Commission found that Lone Oak is a public utility and Complainant received a “declination of jurisdiction” and related approvals for its proposed construction of a 120 megawatt (“MW”) solar generation facility in Madison County, Indiana (“Project” or “Facility”). That Final Order is attached to this Petition as Exhibit B. The power output from the Facility will be sold exclusively into the wholesale electric market. Complainant’s rates for power will be subject to Federal Energy Regulatory Commission (“FERC”) regulation, as it is classified under federal law as an Exempt Wholesale Generator. Lone Oak is a “public utility” within the meaning of Ind. Code §§ 8-1-8.5-1 and 8-1-2-1 and an “energy utility” within the meaning of Ind. Code § 8-1-2.5-2. The Facility is also a “utility” within the meaning of Ind. Code § 8-1-2-1.

II. Respondents’ Status.

The Board and the BZA (collectively, “Respondents”) are parts of the executive branch of county government in Madison County, Indiana, located at 16 E. 9th Street, Anderson, IN 46016. Respondents are subject to the Commission’s jurisdiction pursuant to Ind. Code § 8-1-2-101 (“Section 101”), which vests the Commission with authority to determine if a municipal or county ordinance, regulation or determination related to a public utility is unreasonable, and therefore by operation of law, void.

III. Relevant Facts.

Lone Oak seeks to develop a solar farm on approximately 800 leased acres of land in Madison County. In March 2019, over objections from a group of remonstrators (the

“Remonstrators”), the BZA ultimately granted Lone Oak a “special use” authorization for the Project under the Ordinance (the “Special Use Decision”). The 2019 Special Use Decision is attached as Exhibit C. The Remonstrators filed petitions for judicial review challenging the Special Use Decision, which the trial court denied on November 2, 2020. The Remonstrators then appealed to the Indiana Court of Appeals, and failed again. Until this litigation was finally resolved when the Indiana Supreme Court denied transfer of the case on October 21, 2021, Lone Oak could not reach financial closing or break ground on the Project.¹

Once the challenge to the Special Use Decision was finally decided in its favor, and COVID pandemic-related supply chain issues were alleviated to some degree, Lone Oak petitioned the BZA to modify only one of several conditions the BZA placed on the previously granted Special Use Decision (the “Condition”). Condition #18 required the Project to be complete and operational by December 31, 2023, which is now no longer possible given the litigation and pandemic related Project delays, despite Lone Oak’s best efforts. In summary, the litigation, pandemic, interconnection queue, supply chain and equipment delays have imposed a barrier to meeting Condition #18. Given these circumstances were entirely outside of Lone Oak’s control, the BZA unreasonably denied this request for extension of the commercial operating date to 2025. The BZA’s minutes reflecting denial of Lone Oak’s request to extend Condition #18 to December 31, 2025 is attached as Exhibit D.

On August 26, 2022, Lone Oak filed an Amended Complaint with the Grant County Circuit Court, which claims that the Madison County BZA arbitrarily and capriciously denied Lone Oak’s petition to modify the Condition without any rational basis. Lone Oak’s Amended Complaint to the trial court is attached as Exhibit E. However, Lone Oak anticipates that it will request the trial court stay that proceeding, as it believes that the IURC has exclusive jurisdiction over its complaint

¹ See *Burton v. Bd. of Zoning Appeals of Madison Cnty.*, 174 N.E.3d 202, 207–09 (Ind. Ct. App. 2021), *transfer denied*, 176 N.E.3d 443 (Ind. 2021).

regarding the validity of the Ordinance, and in particular issues relating to the commercial operation of the Project, consistent with the Indiana Court of Appeals holding in *Duke Energy Ind., LLC v. Town of Avon*, 82 N.E.3d 319, 325 (Ind. Ct. App. 2017); *see also, Graham Farms, Inc. v. Indianapolis Power & Light Co.*, 233 N.E.2d 656 (Ind. 1968).

Concurrently with defending against the appeal of the County zoning approval, on July 8, 2019, Lone Oak filed its Verified Petition with the IURC for certain determinations, declinations of jurisdiction, and approvals relating to its proposed construction of the Project in accordance with the Alternative Regulation Statute.² Lone Oak submitted evidence to the Commission that it had complied or would comply with local zoning and land use requirements, had or will obtain all construction-related permits, and would *not* rely on the public utility exemption from local zoning regulation. Lone Oak notes that it has already acquired all of the land rights necessary to build the Project, and did not request any eminent domain authority. The Commission declined to exercise its jurisdiction over Lone Oak as a public utility, along with its construction, operation, and financing of the Project, except as specifically stated within its Order. The IURC further ordered that Lone Oak “shall not exercise an Indiana public utility’s rights, powers, and privileges of eminent domain and of exemption from local zoning, land use requirements, land use ordinances, and construction-related permits in the operation and construction of the Facility.” Order at p. 11.

Lone Oak has all the necessary state, federal, and PJM approvals needed to commence construction or operation; and continues to have the financial, technical and managerial ability to construct, own and operate the project. The global supply chain shortage resulting in part from the COVID pandemic, running contemporaneously with the litigation, caused unexpected delay, but did not affect the need for the Lone Oak Project, which the Commission’s Final Order recognized. PJM has completed its Feasibility, System Impact, and Facilities Studies for the Project. All that stands

² *In the Matter of the Petition by Lone Oak Solar Energy*, IURC Cause No. 45255 (Oct. 29, 2019), 2019 WL 5820560.

in the way of the Lone Oak Project becoming a reality now is the refusal of the Madison County BZA to extend its Special Use Condition related to the Project's commercial operation date. Madison County officials may not lawfully impose arbitrary and capricious deadlines for the construction and operation of a power project, which has no bearing on the County's legitimate government interests.

IV. Relevant State Statutes.

The Commission has jurisdiction over this matter pursuant to Ind. Code § 8-1-2-101. Section 101 requires that the Commission set a hearing upon a Complaint by a utility that a local government ordinance or determination is unreasonable. Indiana Code § 8-1-2-115 ("Section 115") also provides that "The commission...shall have the power, and it shall be its duty, to enforce the provisions of this act, as well as *all other laws*, relating to utilities." The Indiana Court of Appeals has held that Section 101(a)(1) and Section 115 unambiguously establish exclusive jurisdiction in the IURC to hear a public utility's complaint on the validity of a local government ordinance. *Duke Energy*, 82 N.E.3d at 325. Section 115 further expressly directs the IURC to inquire into *any* violation of a local ordinance by a public utility. *Id.* Other statutes that are relevant to this proceeding include Indiana Code §§ 8-1-2-54 through -67, Indiana Code 8-1-2-101.2, and Indiana Code § 36-7-2-8.

V. Constitutional Claims.

Several state and federal constitutional provisions may also be applicable to this case, including but not limited to the following: the Indiana and federal Privileges and Immunities Clauses;³ the Indiana Constitutional prohibition on "Special Laws" regulating county business and requiring that "all laws must have general application and uniform operation throughout the state;⁴

³ Ind. Const. art. 1, § 23 and U.S. Const. amend. XIV, § 1.

⁴ Ind. Const. art. 4, § 22 [10] and Art. 4, § 23.

the state and federal constitutional prohibition on the takings of private property without just compensation;⁵ and the Commerce Clause of the U.S. Constitution.⁶

VI. Request to Stay of Three Year “Deadline” in the Commission’s Final Order.

Several layers of legal and regulatory requirements are needed for a generation project to reach commercial operation. Lone Oak’s declination order from the Commission recognizes that these projects take time, and provides that:

If the Commission determines that Petitioner has (a) failed to enter into an agreement pursuant to PJM generator interconnection procedures; (b) suspended the Project under the terms of the ISA [Interconnection Service Agreement] and has not reinstated work within three years following commencement of such suspension; or (c) has otherwise suspended its efforts to complete the Project within three years of this Order, the Commission may, following notice to Petitioner, proceed to issue an Order terminating the declination of jurisdiction set forth herein.⁷

As reflected in its 2nd Quarter 2022 report to the IURC in Cause No. 45255, Lone Oak executed the ISA and posted \$1,486,380 in cash as security on July 5, 2022 as financial assurance for the transmission investment needed for the Project. The Commission should also recognize the impact that litigation, pandemic, interconnection queue, supply chain and equipment delays have had on Lone Oak and other generation and transmission projects across the state. Under the Commission’s Final Order criteria, Lone Oak is still actively working towards completing the Project. Therefore, Lone Oak requests that the three year limitation in the Order be stayed until this proceeding is resolved.

VII. Relief Requested.

Lone Oak requests that the Commission expeditiously set this Complaint for hearing, find and Order the following:

⁵ Ind. Const. art. 1, Section 21 and U.S. Const. amend. V and XIV.

⁶ U.S. Const. Art. 1, § 8.

⁷ See Exhibit B, Final Order at p. 10.

- A. The County's Solar Energy Zoning Ordinance, as applied, is unreasonable and void;
- B. Find that Lone Oak has diligently pursued development of the Project and suspend the effectiveness of the three year development timeline in the Final Order in Cause No. 45255; and
- C. The Commission continue to decline to exercise its full jurisdiction consistent in all other respects with previous renewable project cases.

VIII. Counsel. Counsel for Lone Oak in this matter duly authorized to accept service of papers in this Cause on behalf of Complainant are:


Kristina Kern Wheeler, #20947-49A
Nikki Gray Shoultz, #16509-41
Bose McKinney & Evans LLP
111 Monument Circle, Suite 2700
Indianapolis, IN 46204
kwheeler@boselaw.com
nshoultz@boselaw.com
317-684-5000 (office)
317-223-0152 (fax)

A proposed procedural schedule will be filed within thirty days of the filing of this Complaint.

WHEREFORE, Lone Oak respectfully requests that the Commission exercise its jurisdiction pursuant to Ind. Code § 8-1-2-101 and related statutes, order an evidentiary hearing, and after such evidentiary hearing, find and order the relief requested by Lone Oak.

Dated this 28th day of October, 2022.

Respectfully submitted,



Kristina Kern Wheeler, #20947-49A
Nikki Gray Shoultz, #16509-41
Bose McKinney & Evans LLP

VERIFICATION

I, Michael Kaplan, do hereby swear and affirm under penalties of perjury, that I have read the foregoing Verified Complaint and that the representations set forth herein are true and correct to the best of my knowledge, information, and belief.

DocuSigned by:

Michael Kaplan

EB4B6326406A4CC...

Michael Kaplan, Senior Vice President
Invenergy LLC

EXHIBITS A-E

ORDINANCE NO. 2017-BC-0-01
ORDINANCE AMENDING THE MADISON COUNTY LAND USE AND
DEVELOPMENT CODE ZONING ORDINANCE ADOPTED
PURSUANT TO I.C. 36-7-4-602 BY ESTABLISHING SOLAR ENERGY STANDARDS

WHEREAS, the Board of Commissioners has adopted, pursuant to I.C. § 36-7-4-602, a Zoning Ordinance, which specifies the intent, permitted uses, special uses, development standards, and other information concerning various land use districts in Madison County; and,

WHEREAS, throughout Indiana and the rest of the United States, the use of systems to utilize solar energy has greatly increased in recent years; and,

WHEREAS, the Madison County Zoning Ordinance presently does not address standards for Solar Energy Systems potentially creating a disincentive for the use of such systems; and,

WHEREAS, the Board of Commissioners deems it desirable for Madison County to implement Solar Energy Standards to reduce uncertainty and encourage the installation of Solar Energy Systems in Madison County.

NOW THEREFORE BE IT ORDAINED, that the following definitions are hereby added to Part A, Article One, Section 1.1 (Basic Provisions) of the Madison County Zoning Ordinance:

Definitions:

BUILDING INTEGRATED PHOTOVOLTAIC SYSTEM: A combination of photovoltaic building components integrated into any building envelope system such as vertical facades including glass and other facade material, semitransparent skylight systems, roofing materials, and shading over windows.

GROUND-MOUNTED SOLAR ENERGY SYSTEM: A Solar Energy System that is anchored to the ground and attached to a pole or other mounting system, detached from any other structure for the primary purpose of producing electricity for onsite consumption.

LARGE-SCALE SOLAR ENERGY SYSTEM: A Solar Energy System that is ground-mounted and produces energy primarily for the purpose of offsite sale or consumption.

ROOF-MOUNTED SOLAR ENERGY SYSTEM: A Solar Panel System located on the roof of any legally permitted building or structure for the purpose of producing electricity for onsite or offsite consumption.

SOLAR ENERGY EQUIPMENT: Electrical energy storage devices, material, hardware, inverters, or other electrical equipment and conduit of photovoltaic devices associated with the production of electrical energy.

SOLAR ENERGY SYSTEM: An electrical generating system composed of a combination of both Solar Panels and Solar Energy Equipment.

SOLAR PANEL: A photovoltaic device capable of collecting and converting solar energy into electrical energy.

1. Article Six, Development Standards, is hereby amended as follows:

6.29 Solar Energy System Standards

SE-01: This Solar Energy Standards section applies to the following districts:

AP, AG, CR, R1, R2, R3, MR, MH, PR, IS, LC, GC, HC, LI, GI

A. **Roof-Mounted Solar Energy System Requirements:**

1. Roof-Mounted Solar Energy Systems that use the electricity onsite or offsite are permitted
2. Roof-Mounted Solar Energy Systems shall not exceed the maximum height restrictions of the zoning district within which they are located
3. Roof-Mounted Solar Energy Systems installations shall incorporate, when feasible, the following design requirements:
 - a. Panels facing the front yard must be mounted at the same angle as the roof's surface with a maximum distance of 18 inches between the roof and the highest edge of the system.
4. Roof-Mounted Solar Energy Systems that use the energy onsite or offsite shall be exempt from site plan review.

B. **Ground-Mounted Solar Energy System Requirements:**

1. Ground-Mounted Solar Energy Systems that use the electricity primarily onsite are permitted as accessory structures
2. Ground-Mounted Solar Energy Systems shall adhere to the height and setback requirements of the underlying zoning district.
3. The surface area covered by Ground-Mounted Solar Energy Systems shall be included in the total lot coverage.
4. All Ground-Mounted Solar Energy Systems shall be installed in the side or rear yards.
5. Ground-Mounted Solar Energy Systems that use the electricity primarily onsite shall be exempt from site plan review.

SE-02: This Solar Energy Standards section applies to the following districts:

AP, AG, CR, PR, IS, LC, GC, HC, LI, GI

A. Large-Scale Solar Energy System Requirements:

1. Large-Scale Solar Energy Systems are permitted with a Special Use.
2. The Special Use shall be null and void if construction has not begun within three (3) years of the approval date, and an extension of the Special use has not been approved.
3. Large-Scale Solar Energy Systems Special Use Permit Application Requirements:
 - a. If the property of the proposed project is to be leased, legal consent between all parties, specifying the use(s) of the land for the duration of the project, including easement and other agreements, shall be submitted.
 - b. A preliminary Site Plan showing the intended layout of the Solar Energy System shall be required. Final designs signed by the Engineer of Record shall be submitted as part of the application for the Improved Location Permit.
 - c. Equipment specification sheets typical of the Solar Energy System shall be documented and submitted for all photovoltaic panels, significant components, mounting systems, and inverters that are anticipated to be installed. Prior to the Improvement Location Permit application, equipment within the Solar Energy System may be substituted, pending approval by the Utility.
 - d. Property Operation and Maintenance - Such plan shall describe continuing photovoltaic maintenance and property upkeep, such as mowing and trimming.
 - e. A Decommissioning Plan must be submitted as part of the Special Use application. Compliance with this plan shall be made a condition of the issuance of a special use permit. The Decommissioning Plan must specify that after the Large-Scale Solar Energy System can no longer be used, it shall be removed by the applicant or any subsequent owner. The plan shall demonstrate how the removal of all infrastructure and the remediation of soil and vegetation shall be conducted to return the parcel to its original state prior to construction. The plan shall also include an expected timeline for execution. A cost estimate detailing the projected cost of executing the Decommissioning Plan shall be prepared. Cost estimations shall take into account inflation. Removal of Large-Scale Solar Energy Systems must be completed in accordance with the Decommissioning Plan. The Decommissioning Plan may be updated until final construction permitting. If the Large-Scale Energy System is not decommissioned after being considered abandoned, the municipality may remove the system and restore the property and impose a lien on the property to cover these costs to the municipality. A Recorded Decommissioning Plan prepared, signed, and stamped by a Professional Engineer must be submitted with the Improvement Location Permit application. Significant changes to the

Decommissioning Plan may require additional approval by the Board of Zoning Appeals.

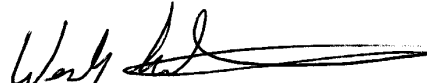
4. A minimum of 5 Acres is required for Large-Scale Solar Energy Systems
5. Large-Scale Solar Energy Systems shall adhere to the Buffer Yard Standards in Section 6.7 of this ordinance.
6. Large-Scale Solar Energy Systems shall not exceed the maximum height restrictions of the zoning district within which they are located
7. The surface area covered by Large-Scale Solar Energy Systems shall not be included in calculating the total lot coverage.
8. All Large-Scale Solar Energy Systems shall be enclosed by fencing on all sides (including the front yard). Fencing shall not exceed 8 feet in height without a variance. Warning signs with the owner's contact information shall be placed on the entrance and perimeter of the fencing. Fencing must adhere to Section 6.25 of this ordinance for standards not specified in this section.
9. Signage on the solar farm fencing shall display the facility name, address and emergency contact information. All signage must adhere to Article 7 of this ordinance and the National Electric Safety Code.
10. Reasonable accessibility for emergency services vehicles shall be required.
11. No grid tied System shall be installed until evidence has been given to the planning and development department that the owner has been approved by the utility company to install the system. Off-grid systems shall be exempt from this requirement.

B. Abandonment and Decommissioning

1. Solar Energy Systems are considered abandoned after 1 year without electrical energy generation and must be removed from the property. Applications for extensions are reviewed by the Board of Zoning Appeals.

2. Any violation of this Solar Energy Ordinance shall be subject to the same civil and criminal penalties provided for in Section 14 of this Ordinance.

This Ordinance was recommended for adoption by the Plan Commission of Madison County, Indiana on the _____ day of _____, 2017.



Wesley Likens, President

Mark Gary, Vice-President

ATTEST:

Elizabeth Bruns, Secretary

THIS ORDINANCE HAVING BEEN APPROVED AND ADOPTED by the Board of Commissioners of Madison County on this 17 day of January, 2017.

BOARD OF COMMISSIONERS OF
MADISON COUNTY, INDIANA

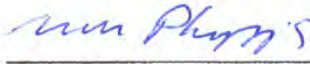


John M. Richwine, President

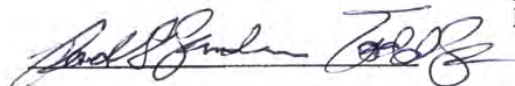


Steffanie L. Owens

ATTEST:



Michael Phipps



Prepared by:

JEFFREY K. GRAHAM/#26380-29
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Facsimile: 765-552-5496

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**CERTIFICATION OF PROPOSED AMENDMENT TO
THE ZONING ORDINANCE OF MADISON COUNTY,
INDIANA, CONTAINED IN THE MADISON COUNTY
LAND USE AND DEVELOPMENT CODE**

The Madison County Plan Commission hereby certifies with a favorable recommendation the Amendment attached hereto to the Madison County Zoning Ordinance contained in the Madison County Land Use and Development Code.

SO CERTIFIED THIS 10TH DAY OF JANUARY, 2017.

MADISON COUNTY PLAN COMMISSION

BY: 

WESLEY LIKENS, President

JEFFREY K. GRAHAM/#26380-29
BINGHAM, FARRER & WILSON, P.C.
Attorneys at Law
1601 South Anderson Street
P. O. Box 494
Elwood, IN 46036
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ORIGINAL
[Handwritten signature]
SJK

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION BY LONE)
OAK SOLAR ENERGY LLC FOR CERTAIN) CAUSE NO. 45255
DETERMINATIONS BY THE COMMISSION)
WITH RESPECT TO ITS JURISDICTION OVER) APPROVED: OCT 29 2019
PETITIONER'S ACTIVITIES AS A GENERATOR)
OF ELECTRIC POWER)

ORDER OF THE COMMISSION

Presiding Officer:
James F. Huston, Chairman
Jennifer L. Schuster, Administrative Law Judge

On July 8, 2019, Lone Oak Solar Energy LLC ("Petitioner") filed its Verified Petition with the Indiana Utility Regulatory Commission ("Commission") in this Cause for certain determinations, declinations of jurisdiction, and approvals relating to its proposed construction of a solar generation facility of up to 120 megawatts of alternating current ("MW_{AC}") located in Madison County, Indiana ("Facility" or "Project"), in accordance with Ind. Code ch. 8-1-2.5.

The Commission held an evidentiary hearing in this Cause in Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana, at 9:30 a.m. on October 1, 2019. Petitioner and the OUCC were present and participated. The testimony and exhibits of Petitioner and the OUCC were admitted into the record without objection.

Based upon the evidence, the Commission now finds:

1. **Notice and Jurisdiction.** Notice of the hearing in this Cause was given and published by the Commission as required by law. As discussed further below, Petitioner intends to engage in activity that would qualify it as a "public utility" under Ind. Code § 8-1-2-1 and as an "energy utility" under Ind. Code § 8-1-2.5-2. Therefore, the Commission has jurisdiction over Petitioner and the subject matter of this case.

2. **Petitioner's Characteristics.** Petitioner is a limited liability company organized and existing under the laws of the state of Delaware and authorized to do business in Indiana. Petitioner's principal place of business is located at One South Wacker Drive, Suite 1800, Chicago, Illinois 60606. Petitioner is a wholly owned subsidiary of Invenergy Solar Development North America LLC ("ISDNA"), which is a wholly owned subsidiary of Invenergy Renewables LLC. Petitioner, ISDNA, and Invenergy Renewables LLC are affiliates of Invenergy LLC ("Invenergy"), an Illinois limited liability company. Invenergy specializes in the development of

large-scale renewable and other clean energy generation and storage facilities worldwide and is headquartered in Chicago, Illinois.

3. **Relief Requested.** Petitioner has requested that the Commission decline to exercise its jurisdiction pursuant to Ind. Code § 8-1-2.5-5 with respect to the construction, ownership, operation of, and any other activity in connection with the Facility on a schedule that would allow it to make investments and commence certain activities this year, including limited construction, in order for it to obtain the full value of the solar Investment Tax Credit, which starts to decline after December 31, 2019. Petitioner will be a wholesale provider of electricity and will generate electricity from solar, a renewable energy resource, for sale in the wholesale power market.

Petitioner anticipates the Facility will be capable of generating up to approximately 120 MW_{AC} from approximately 411,453 solar panels over an approximately 1,198-acre solar panel farm. The solar panels will connect to an on-site substation that will interconnect to AEP's Makahoy 138 kV substation. The power output from the Facility will be sold exclusively into the wholesale electric market. Petitioner will self-certify the Facility as an exempt wholesale generator and apply for market-based rate authority under rules and regulations of the Federal Energy Regulatory Commission ("FERC"). Therefore, Petitioner's rates for power will be subject to FERC regulation.

4. **Commission Discussion and Findings.** If the Commission finds that Petitioner is a public utility for purposes of Indiana's Utility Power Plant Construction Act (Ind. Code ch. 8-1-8.5) (the "Power Plant Act"), then Petitioner would be considered an "energy utility" as defined by Ind. Code § 8-1-2.5-2. The Commission may decline to exercise its jurisdiction pursuant to Ind. Code ch. 8-1-2.5, including its jurisdiction under Ind. Code ch. 8-1-8.5, to issue certificates of public convenience and necessity for the construction of the Facility. In order for the Commission to decline to exercise jurisdiction over Petitioner pursuant to Ind. Code ch. 8-1-2.5, the Commission must first assert jurisdiction over Petitioner.

The Power Plant Act defines "public utility" to mean a "(1) public, municipally owned or cooperatively owned utility; or (2) joint agency created under IC 8-1-2.2." Ind. Code § 8-1-8.5-1(a). Petitioner is a limited liability company that will generate electricity, some of which may ultimately be consumed by Indiana residents. The Commission has previously asserted jurisdiction over investor-owned public utilities pursuant to Ind. Code ch. 8-1-8.5. *See, e.g., Indianapolis Power & Light Co.*, Cause No. 43235, 2007 WL 8420716 (IURC June 13, 2007). In addition, Petitioner's property "is used in a business that is public in nature and not one that is private." *Foltz v. City of Indianapolis*, 130 N.E.2d 650, 659 (Ind. 1955). Accordingly, Petitioner's business is "impressed with a public interest" and renders service "of a public character and of public consequence and concern," which leads us to determine that Petitioner is a "public utility" within the meaning of Ind. Code § 8-1-8.5-1. *Id.*

The Commission must also determine that Petitioner satisfies the definition of "public utility" found in Ind. Code § 8-1-2-1. The evidence establishes that Petitioner's ownership, development, financing, construction, and operation of the Facility is for the purpose of sale of the power generated by that plant in the wholesale market to public utilities, energy service providers, and power marketers within and outside of Indiana. The Commission has found in prior cases that

a business that only generates electricity and then sells that electricity directly to public utilities is itself a public utility. *See, e.g., Benton County Wind Farm, LLC*, Cause No. 43068, 2006 WL 4400582 (IURC Dec. 6, 2006). In *Benton County*, the Commission specifically found that it had jurisdiction over a wind energy generator with wholesale operations such as Petitioner. Consequently, for purposes of the ownership, development, financing, construction, and operation of the Facility, we find that Petitioner is a public utility within the meaning of Ind. Code §§ 8-1-2-1 and 8-1-8.5-1 and an “energy utility” within the meaning of Ind. Code § 8-1-2.5-2.¹

The Indiana Code authorizes the Commission to decline to exercise, in whole or in part, jurisdiction over an “energy utility” if certain conditions are satisfied. In particular, the Indiana Code provides that the Commission may enter an order, after notice and hearing, that the public interest requires the Commission “to commence an orderly process to decline to exercise, in whole or in part, its jurisdiction over . . . the energy utility” Ind. Code § 8-1-2.5-5(a).

In determining whether the public interest will be served by a declination of jurisdiction, the Commission will consider the following:

- (1) Whether technological or operating conditions, competitive forces, or the extent of regulation by other state or federal regulatory bodies render the exercise, in whole or in part, of jurisdiction by the commission unnecessary or wasteful.
- (2) Whether the commission’s declining to exercise, in whole or in part, its jurisdiction will be beneficial for the energy utility, the energy utility’s customers, or the state.
- (3) Whether the commission’s declining to exercise, in whole or in part, its jurisdiction will promote energy utility efficiency.
- (4) Whether the exercise of commission jurisdiction inhibits an energy utility from competing with other providers of functionally similar energy services or equipment.

Ind. Code § 8-1-2.5-5(b).

The evidence in this Cause demonstrates that Petitioner does not intend, nor does it request authority, to sell the electricity generated by the Facility to the general public or to any retail customer. Instead, the power will be generated solely for resale subject to the jurisdiction of FERC under the provisions of the Federal Power Act, 16 U.S.C. § 824 *et seq.* (“FPA”). Petitioner has indicated that it will operate the Facility in a manner consistent with good utility practice. Further, the costs of the Facility will not be recovered through a rate base/rate of return or other process typically associated with public utility rates.

¹ Ind. Code § 8-1-2.5-2 defines “energy utility” to mean, among other things, a public utility or municipally owned utility within the meaning of Ind. Code § 8-1-2-1. Because we have determined that Petitioner is a “public utility” under Ind. Code § 8-1-2-1, Petitioner is also an “energy utility.”

OUCC witness Lauren M. Aguilar testified in support of Petitioner's construction of the Facility and request for relief. The OUCC recommended that the Commission's order declining jurisdiction include reporting requirements regarding the status of the solar farm's development as proposed by Petitioner, with an additional requirement for Lone Oak Solar Energy LLC to include information concerning the acquisition of additional land for the project.

As part of the Commission's public interest analysis regarding any proposed declination of jurisdiction, the Commission must evaluate facilities such as Petitioner's based on a number of factors, as discussed in the following sections.

A. Location. As part of its public interest determination, the Commission may consider whether or not the location of a proposed facility is compatible with the surrounding land uses. In determining compatibility, the Commission may evaluate and consider any evidence of compliance with local zoning and land use requirements. In deciding whether to decline jurisdiction, the Commission has the authority to consider whether the public interest will be served by the Facility being in its planned location.

In making such a determination, the Commission must consider the potential for adverse effects on Indiana "electricity suppliers" (as that term is used in Ind. Code ch. 8-1-2.3), their customers, or a local community. Indiana statutes regarding surface and groundwater rights and obligations, including those establishing the authority of the Indiana Natural Resources Commission, Ind. Code § 14-25-7-15, do not limit the Commission's jurisdiction to make such determinations under the public interest standard of Ind. Code ch. 8-1-2.5 or the public convenience and necessity standard of Ind. Code § 8-1-8.5-5(b)(3). If a proposed new generating facility will significantly and negatively impact an electricity supplier, its consumers, or a local community, the Commission may refuse to decline jurisdiction under Ind. Code chs. 8-1-2.5 and 8-1-8.5. Based on the factors described below, the Commission finds that the Facility's proposed location is compatible with the surrounding land uses.

i. Local Zoning and Permitting Requirements. Petitioner submitted evidence that it has complied or will comply with local zoning and land use requirements, has or will obtain all construction-related permits, and will not rely on the public utility exemption from local zoning regulation. Petitioner's evidence demonstrates that the Project is located in Madison County, Indiana. Madison County has a zoning ordinance governing the development of solar farms with which the Project will comply. Petitioner applied for a Special Use permit and two variances with the Madison County Board of Zoning Appeals, all of which were approved. In addition, the Project requires an Improvement Location permit and approval from the County Drainage Board, which Petitioner will obtain before the start of construction of the Project facilities.

ii. Land Use and Solar Resources. Based on the evidence presented, it appears that Petitioner, utilizing its experience in developing other solar projects throughout the United States, has determined that the solar resource at the Project site is sufficient for the development of an economically viable project. In addition, the landowners on whose land the Project facilities will be located have consented to the locations of the Project facilities. A

preliminary site map that shows the approximate locations of these facilities was submitted in this Cause as Petitioner's Exhibit 1, Attachment KS-1.

iii. **Water Use and Supply.** Ms. Samoteskul testified that the Project will not use water in significant quantities, and it will have negligible or no impact on local water supplies. Small quantities of water may be used during construction, reconstruction, and removal of Project facilities, primarily for dust control. After construction is completed, water may be used for panel washing, if necessary.

iv. **Transmission Interconnection.** The Facility is expected to interconnect to the PJM Interconnection, LLC ("PJM") transmission system. Petitioner expects that an Interconnection Service Agreement ("ISA") with PJM will be completed by June 2020. The Project's solar panels will be arranged on the Project site in the form of single-axis tracking solar arrays. Structures supporting the photovoltaic ("PV") modules will consist of steel piles (e.g., cylindrical pipes, H-beams, or similar). The proposed design is laid out primarily in approximately 4-MW increments (blocks). Each 4-MW block will include an inverter-transformer station constructed on a pad that is to be generally located on the interior perimeters of each block. Cables will be installed to convey the direct current ("DC") electricity from the panels to the inverters to convert the DC to alternating current ("AC"), which will then be carried to a substation located onsite which will transform voltage to 138 kV. The Project's substation will interconnect to AEP's Makahoy substation, which is adjacent to the Project substation.

A feasibility study for the Project was completed in April 2018 and was submitted with Ms. Samoteskul's testimony as Petitioner's Exhibit 1, Attachment KS-7. Ms. Samoteskul testified that the Feasibility Study indicated that the Facility's interconnection with the AEP transmission system will not negatively impact system performance. The power output from the Facility will be sold exclusively in the wholesale electric market. Petitioner will self-certify the Facility as an exempt wholesale generator and apply for market-based rate authority under FERC rules and regulations. Therefore, its wholesale rates for power will be subject to FERC regulation.

v. **Additional Permitting and Environmental Issues.** Ms. Samoteskul indicated in her testimony that Petitioner has or will apply for all necessary federal, state, and local permits needed for construction and operation of the Facility. Ms. Samoteskul testified that no environmental issues are foreseen that would delay or prevent the permitting and construction of the Project. Petitioner performed a Site Characterization Study of the Project site and surrounding area. Objectives of the Site Characterization Study were to provide information needed to address questions posed under the Tier 2 Site Characterization Study tier of the United States Fish and Wildlife Service's ("USFWS") Land-Based Wind Energy Guidelines ("WEG"), such as identifying potential wildlife or sensitive habitat issues within and near the Project area. Because USFWS has not yet developed a solar-specific guidance document, the WEG was used for the Project to provide a framework for environmental review.

The Tier 2 site characterization was completed using a combination of existing information obtained from publicly available sources, including reports, published literature, online databases, geographic information system data, site reconnaissance, and agency consultation with USFWS and the Indiana Department of Natural Resources ("IDNR"). USFWS and IDNR made

recommendations regarding ways to minimize environmental impacts, such as avoiding forests during construction and avoiding native grassland areas. Petitioner has incorporated these recommendations into its development strategy. USFWS and IDNR indicated that they have no major concerns regarding the Project's environmental impact.

Petitioner also performed a Phase I Environmental Site Assessment in accordance with ASTM Practice E 1527-13 and a Preliminary Cultural Resources Desktop Review. The Environmental Site Assessment found no known, existing on-site recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the Project area. The purpose of the Cultural Resources Desktop Review was to identify and provide an inventory of restricted and publically available previously recorded cultural resources within and one mile around the Project area. Ms. Samoteskul also testified that Petitioner has entered into a Decommissioning Plan Agreement with Madison County in accordance with its solar ordinance.

Ms. Aguilar testified that Petitioner will be regulated by other bodies in order to protect the public interest regarding the Project's future operation and wholesale energy transactions. She opined that further regulation by the Commission would be duplicative of other regulatory bodies.

To the extent required by state law, Petitioner may need to obtain the following permits and determinations: a permit under Title 327 of the Indiana Administrative Code for the discharge of construction-related storm water, also known as a Rule 5 permit, and Indiana Department of Transportation ("INDOT") permits, as needed, to allow the Facility's electric lines and other equipment to cross state highways and for driveways, road exits, and the like.

Petitioner may also be required by federal law to do the following: self-certify as an exempt wholesale generator and apply for market-based rate authority under FERC's rules and regulations; prepare a federal spill prevention, control, and countermeasure plan as necessary; and obtain a U.S. Army Corps of Engineers nationwide permit for stream crossing, if necessary.

vi. Using the Public Right-of-Way. Petitioner seeks to retain the right to use the public right-of-way. Petitioner notes that the Commission has allowed wind projects to retain the right to use the public right-of-way. Retention of the use of public right-of-way will allow Petitioner to place transmission lines and collector lines in the public right-of-way and will allow Petitioner to use the right-of-way for road crossings.

Based upon the evidence presented, we find Petitioner's request for limited use of the public right-of-way to be reasonable, and we find that Petitioner retains the right to use the public right-of-way as identified in its evidence.

B. Need. The Commission must determine if the development of additional generating capacity will serve the public interest. As explained further below, the Commission finds that the evidence presented demonstrates a reasonable expectation of need for the Facility and finds that its construction will serve the public interest.

Ms. Samoteskul testified that electricity generated by the Facility is needed based upon the most recent forecast of Indiana's future electricity requirements by the State Utility Forecasting Group at Purdue University ("SUFUG") in its report, *Indiana Electricity Projections: The 2018 Forecast Update*. According to the SUFG's report, approximately 1,592 MW of additional electric resources will be required by 2023, and approximately 8,150 MW of additional resources will be required by 2035. Ms. Samoteskul testified that the Facility will contribute to the 1,592 of MW needed by 2023 and the 8,150 MW needed by 2035 during the first several years of the Facility's life.

Ms. Samoteskul testified that she believes the public interest will be served by the addition of the electric generating capacity represented by the Project. First, the public needs electricity. Second, Petitioner's proposed solar facility represents one of the most environmentally friendly means of generating electricity. Third, the public in Indiana may also benefit from the efficiencies that flow from proximity to the source of generation. Fourth, landowners in the area of the Project will receive economic benefits from the placement of solar facilities on their properties. Fifth, local taxing bodies will receive new tax revenues. Sixth, approximately 150 construction jobs and approximately two or more full-time operations and maintenance jobs will be created by the Project. Finally, solar energy provides greater energy security. It will diversify Indiana's electricity generation portfolio, protecting against volatile price spikes and risks from relying too heavily on just a few sources of generation.

According to Ms. Samoteskul, Petitioner has taken several steps to educate the local community about the Project, including by mailing informational pieces to registered voters throughout Madison County, publishing a "Top Questions about Solar Energy" newspaper insert in two local newspapers, and holding an open house to discuss the Project with local residents.

Based on the evidence presented, we find that Petitioner's proposed development of additional generating capacity through the Facility is supported by the evidence and will serve the public interest.

C. Financing and Management. To ensure that Indiana consumers are not adversely affected by the proposed development of generation plants in Indiana, developers must demonstrate to the Commission that the financial structure of a proposed project will not jeopardize retail electric supply. In assessing a developer's financing to ensure the viability of a proposed project, the Commission may consider the developer's ability to finance, construct, lease, own, and operate other generating facilities in a commercially responsible manner. As necessary, the Commission may also consider the specific method proposed to finance a particular project.

Petitioner's indirect parent company is Invenergy Renewables LLC, which has a portfolio of renewable energy projects in operation or in development that currently includes more than 93 wind and 26 solar projects in the United States that represent more than 15,000 MW of aggregate capacity. Petitioner and Invenergy Renewables LLC are affiliates of Invenergy, which specializes in the development of large-scale renewable and other clean energy generation and storage facilities worldwide. Invenergy has developed 146 projects worldwide totaling more than 22,600 MW, including 3,216 MW of solar projects, representing more than \$32 billion in capital investment. Ms. Samoteskul testified that Petitioner has the ability to finance the Project and that

Petitioner has all of the necessary financial, technical, and managerial expertise to construct and operate the Project. She also testified that Petitioner will operate the Project in a commercially reasonable manner in accordance with good utility practice. Based upon the evidence presented, the Commission finds that Petitioner has the ability to finance, construct, and manage the Project.

D. Affiliate Transactions. In addition to determining whether the public interest would be served if the Commission declines jurisdiction, the Commission also must consider what actions it must take to ensure that the public interest is served throughout the commercial life of the Project. Specifically, the Commission must determine the extent to which it must reserve its authority over Petitioner's activities involving affiliate transactions and transfers of ownership. To ensure that the Commission's declination of jurisdiction over an "energy utility" is in the public interest, the Commission must be assured that adequate consumer protections are in place, should an "energy utility" subsequently become an affiliate, as defined in Ind. Code § 8-1-2-49, of any regulated Indiana retail utility. While the Commission is declining jurisdiction over Petitioner's affiliate transactions initially, the Commission reserves its authority to regulate Petitioner should it become an affiliate of any regulated Indiana retail utility. Accordingly, Petitioner must inform the Commission and the OUCC at the time it becomes an affiliate of any regulated retail utility operating in Indiana.

Petitioner shall obtain prior Commission approval with respect to the sale of any electricity to any affiliated, regulated Indiana retail electric utility. The Commission notes that it retains certain authority under Section 201 of the FPA to examine Petitioner's books, accounts, memoranda, contracts, and records consistent with the limitations contained therein. 16 U.S.C. § 824.

E. Transfers of Ownership. The Commission reserves its jurisdiction under Ind. Code § 8-1-2-83 and requires Petitioner to obtain prior Commission approval of any transfer of Petitioner's franchise, works, or system.

In addition, consistent with prior Commission orders involving wind and solar farms, Petitioner shall not be required to seek prior approval, but shall provide written notice to the Commission and the OUCC, of any transfers of ownership of Facility assets or ownership interests in Petitioner involving: (1) the grant of a security interest, mortgage, deed of trust, or other encumbrance to a bank or other lender or collateral agent, administrative agent, or other security representative, or a trustee on behalf of bondholders in connection with any financing or refinancing (including any lease financing), or any investor, guarantor, equipment supplier, or financing or tax equity entity; (2) a debtor in possession; (3) an affiliate of Petitioner; or (4) a foreclosure (or deed in lieu of foreclosure) on the property owned by Petitioner. Additionally, a third-party owner and operator may succeed to Petitioner's declination of jurisdiction, provided that (1) the Commission determines that the successor has the necessary technical, financial, and managerial capability to own and operate the Facility; and (2) the successor satisfies the same terms and conditions imposed on Petitioner as set forth in this Order.

5. Financial Assurance. Madison County's solar energy ordinance requires that Petitioner have a decommissioning plan in order to construct the Facility. The decommissioning plan provides assurance that the Project facilities are properly decommissioned at the end of the

Project's useful life or upon facility abandonment. The decommissioning plan requires Petitioner to post and maintain a financial assurance to cover the cost of decommissioning the Project, including demolition and removal of the Project facilities, to guard against the unlikely and worst-case possibility that Petitioner will be unable to meet its obligation to remove the solar project. A decommissioning security (a performance or surety bond) must be provided. The decommissioning security is intended primarily to cover the cost of removing project infrastructure and for restoring the leased premises to their pre-construction condition. Petitioner testified that it would provide such security as required.

Petitioner shall notify the Commission when its decommissioning security has been established, including the form and amount of the security. Petitioner must also notify the Commission if it is no longer required to comply with all or part of the financial assurance requirements in the Madison County solar energy ordinance. We find that the financial assurance requirements set forth in the Madison County solar ordinance are sufficient to satisfy this requirement.

6. Reporting Requirements. In addition to the foregoing requirements, it shall be a condition of this Order and our continued declination of jurisdiction over Petitioner that Petitioner file Annual Reports with the Commission as provided in Ind. Code § 8-1-2-49 and provide such other information requested by the Commission. These reporting requirements are intended to ensure that the Commission obtains reliable, up-to-date information in a timely manner necessary to carry out its statutory obligations. A responsible officer of Petitioner shall verify all reports.

The following reports shall be prepared and filed by Petitioner:

A. Initial Report. Petitioner's initial quarterly report, due within 30 days after the date of this Order, shall provide the following information, to the extent it is known and available:

- (1) Project ownership and name(s) of the Facility;
- (2) Name, title, address, and phone number(s) for primary contact person(s) for the Facility;
- (3) Number and location of solar panels deployed;
- (4) Status of any additional land acquired;
- (5) Anticipated total output of the Facility;
- (6) Manufacturer, model number, and operational characteristics of solar panels;
- (7) Connecting utility(s);
- (8) Copy of any Interconnection System Impact Studies prepared by PJM;
- (9) Expected in-service (commercial operation) date;
- (10) An estimate of the engineering/construction timeline and critical milestones for the Facility;
- (11) The status of the ISA with PJM; and
- (12) The information listed below in the Subsequent Reports section to the extent such information is available.

B. Subsequent Reports. Petitioner's subsequent reports shall be filed within 30 days of the end of each calendar quarter until the quarter that occurs after commercial operation is achieved and that immediately precedes the Annual Report filing date. Thereafter, subsequent reports should be filed as an addendum to Petitioner's Annual Report. Subsequent reports should include the following information:

- (1) Any changes to the information provided in the Initial Report;
- (2) Any reports of Interconnection System Impact Studies not previously submitted to the Commission;
- (3) Copy of the ISA as filed with FERC;
- (4) Notice of the establishment of an independent financial instrument, including its form and amount;
- (5) Achievement of construction milestones described in the ISA and such events as the procurement of major equipment, the receipt of major permits material to the construction and operation of the Facility, construction start-up, initial energization, and commercial operation; and
- (6) When commercial operation is achieved, the nameplate capacity, term and identity of a purchaser for any contracts then existing for utility sales, contingency plans (if any) detailing response plans to emergency conditions as required by state or local units of government, the interconnecting transmission owner and/or PJM, and the Facility's certified (or accredited) dependable capacity rating.

C. Additional Requirements. In the event that Petitioner intends to materially increase or decrease or otherwise materially change the Facility's capacity or operation, the owner must obtain the Commission's prior approval.² Petitioner shall notify the Commission in the event it modifies or suspends the Project under the terms of the ISA and does not reinstitute work within three years following commencement of such suspension. If the Commission determines that Petitioner has (a) failed to enter into an agreement pursuant to PJM generator interconnection procedures; (b) suspended the Project under the terms of the ISA and has not reinstated work within three years following commencement of such suspension; or (c) has otherwise suspended its efforts to complete the Project within three years of this Order, the Commission may, following notice to Petitioner, proceed to issue an Order terminating the declination of jurisdiction set forth herein.

7. **Conclusion.** Pursuant to the provisions set forth in Ind. Code § 8-1-2.5-5, the Commission finds that declining to exercise its jurisdiction over Petitioner and the Facility will facilitate the immediate construction of the proposed Facility and will add generation capacity in Indiana. This should be beneficial for public utilities that may indirectly have access to the power produced and to the state of Indiana. We further conclude that the Commission's declining to exercise jurisdiction over Petitioner will promote energy utility efficiency. In addition, Petitioner has demonstrated that it has the technical, financial, and managerial capabilities to construct and operate the proposed Facility. It has also shown that the wholesale market for electricity in Indiana

² A material change includes the following: an increase or decrease of greater than three MW in the Facility's capacity; changes in operating entities, transfers of assets, and changes identified in case law as a material change.

will benefit from the addition of the generating capacity and therefore that its market entry is reasonable.

Accordingly, based on these findings and the additional requirements contained in this Order, the Commission believes that a declination of jurisdiction over Petitioner as an energy utility, except in the areas in which we reserve jurisdiction that are identified above, is in the public interest. While the Commission is not declining jurisdiction for a particular term of years, the Commission does not intend to reassert jurisdiction absent circumstances affecting the public interest. Petitioner is not granted authority to offer its power for sale to the general public. Therefore, any revenue that it derives from the sale of electricity for resale by the purchaser is not subject to the public utility fee.

If the Commission determines that Petitioner either (1) has failed to commence construction of the Facility within the timeframe provided under this Order; (2) is no longer diligently pursuing the commencement of construction of the Facility; or (3) has not completed construction of the Facility under the terms of the ISA, then the Commission may, following notice to Petitioner, issue an order terminating the declination of jurisdiction set forth herein. Petitioner shall file status reports with the Commission and the OUCC when construction begins and shall continue providing such reports until commercial operation of the Facility begins. Petitioner will satisfy the reporting requirements outlined above before commercial operation of the Facility begins. Petitioner shall also file with the Commission any annual report required to be filed with FERC and provide the Commission such other information as we may from time to time require from other Indiana public utilities.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. Petitioner is a “public utility” within the meaning of Ind. Code §§ 8-1-8.5-1 and 8-1-2-1 and an “energy utility” within the meaning of Ind. Code § 8-1-2.5-2.
2. The Facility is a “utility” within the meaning of Ind. Code § 8-1-2-1.
3. The Commission declines to exercise its jurisdiction over Petitioner and its construction, operation, and financing of the Facility, except as specifically stated within this Order.
4. Petitioner shall not exercise an Indiana public utility’s rights, powers, and privileges of eminent domain and of exemption from local zoning, land use requirements, land use ordinances, and construction-related permits in the operation and construction of the Facility. Petitioner shall retain the right to a limited use of the public right-of-way within the Facility area as described above.
5. Petitioner shall not sell at retail in the state of Indiana any of the electricity generated by the Facility without further order of the Commission. The gross revenues generated by sales for resale of the electricity generated by the Facility are adjudged to be exempt from the public utility fee prescribed by Ind. Code ch. 8-1-6.

6. Petitioner shall comply fully with the terms of this Order and submit to the Commission all information required by the terms of this Order.

7. This Order shall be effective on and after the date of its approval.

HUSTON, KREVDA, AND ZIEGNER CONCUR; FREEMAN AND OBER ABSENT:

APPROVED: OCT 29 2019

**I hereby certify that the above is a true
and correct copy of the Order as approved.**

Virginia Lucas acting for Mary Becerra
Mary M. Becerra
Secretary of the Commission

27C01-2207-PL-000052

Grant Circuit Court

Page 1 of 12
Filed: 7/28/2022 10:59 AM
Clerk
Grant County, Indiana

MADISON COUNTY BOARD OF ZONING APPEALS

IN THE MATTER OF PETITION 2019-SU-001
BY LONE OAK SOLAR ENERGY, LLC



ORDER

Comes now the Madison County Board of Zoning Appeals ("BZA"), and after receiving written and oral evidence at a April 23, 2019 hearing, as well as the continuation of that hearing on both May 16, 2019 and May 28, 2019, now states the following:

1. Board Members Don Pine, Beth Vansickle, Jerry Stamm, and Vice Chair John Simmermon were present during the April 23, 2019 hearing, as well as both continuations thereof. Chair Mary Jane Baker did not participate or attend the hearing.
2. After considering all oral and written evidence, the BZA hereby, pursuant to a 3-1 vote, APPROVES 2019-SU-001 submitted by Petitioner Lone Oak Solar Energy, LLC.
3. The BZA hereby adopts the Findings of Fact for Special Use contained in the May 28, 2019 Staff Report of the Madison County Board of Zoning Appeals, which is attached hereto as Exhibit "A."
4. The BZA's adoption of the Findings of Fact for Special Use are contingent on the Board's Conditions for Adoption of Findings of Fact, which are attached hereto as Exhibit "B."

SO APPROVED ON THE 28th DAY OF MAY, 2019

/s/ JOHN SIMMERMON
JOHN SIMMERMON, VICE CHAIR
MADISON COUNTY BOARD OF ZONING APPEALS

STAFF REPORT
MADISON COUNTY BOARD OF ZONING APPEALS
May 28, 2019
Petition 2019-SU-001

Updated: May 24, 2019

Case Number: 2019-SU-001
Address: N/A
Parcel(s): 48-05-08-100-006.000-025, 48-05-08-200-001.000-025, 48-05-08-300-001.000-025, 48-05-08-400-001.000-025, 48-05-08-400-003.000-025, 48-05-08-600-001.000-025, 48-05-09-200-004.000-021, 48-05-09-200-005.000-021, 48-05-09-200-006.000-021, 48-05-09-300-002.000-021, 48-05-09-300-004.000-021, 48-05-17-100-028.000-025, 48-05-17-200-007.000-025, 48-05-17-300-001.000-025, 48-05-17-300-004.000-025, 48-05-17-300-005.000-025, 48-05-17-400-001.000-025, 48-05-17-400-002.000-025, 48-05-17-400-003.000-025, 48-05-17-400-007.000-025, 48-05-17-400-014.000-025, 48-05-17-400-015.000-025, 48-05-17-400-018.000-025, 48-05-17-400-019.000-025, 48-05-19-100-001.000-025, 48-05-19-100-005.000-025, 48-05-19-300-002.000-025, 48-05-19-300-011.000-025, 48-05-19-400-002.000-025, 48-05-19-400-003.000-025, 48-05-19-400-004.000-025, 48-05-19-400-007.000-025, 48-05-19-400-009.000-025, 48-05-20-100-001.000-025, 48-05-20-300-003.000-025
Township: Pipe Creek Township and Monroe Township
Commissioner: North District Commissioner
Location: Multiple locations between West 1000 North and West 1300 North (north to south) and North 350 West and North 600 West (east to west) – please see the Site Plan for precise locations
Owner(s): Dianna Etchison, Dan Etchison, Denise Etchison, Barber Family Farms Inc., Barber Livestock Farms Inc., Helser Family Share Trust dated January 19, 2017, John W Richwine Farms Inc, Benjamin Lloyd Richwine Farms Inc, Cindy Pruitt, Shirley Reason, Leota Brown, Patricia Shrock, Tony Barber, Judy Bailey, Don & Judy Bailey Farms Inc., Gary Reichart, Myron Wittkamper, Ray & Tamara Utterback, Virgil & Kaye Canfield, Justin D. Fisher, Mitchell L. Cain, Robert L. Cain, Linda L. Cain
Petitioner: Lone Oak solar Energy, LLC, c/o Katya Samoteskul
Zoning: Agriculture (AG)
Request: A Special Use to construct a Large Scale Solar Farm on approximately 800 acres of leased ground
Notices: 150 Notices mailed out by April 12, 2019

STAFF REPORT
MADISON COUNTY BOARD OF ZONING APPEALS
May 28, 2019
Petition 2019-SU-001

Updated: May 24, 2019

SUMMARY:

SITE, PETITIONER, PROPOSAL, and OPERATION INFORMATION

- ◊ The petitioner is Lone Oak Solar Energy, LLC which is a Delaware Limited Liability Company authorized to do business in Indiana. Lone Oak Solar Energy, LLC is a wholly-owned subsidiary of Invenergy and the Principal Office address is located in Chicago, Illinois.
- ◊ Invenergy develops, builds, owns and operates large-scale energy facilities across four core technologies (wind, natural gas, solar, battery storage). Invenergy has developed 125 large-scale projects totaling more than 20,000 MW.
- ◊ Lone Oak Solar Energy, LLC will develop, design, permit construct and operate the project and sell the electrical output to customers pursuant to one or more agreements. Alternatively, Invenergy will sell some or all of the project to one or more public utilities, and will remain as the builder and operator of the project.
- ◊ The proposed project will be located on 35 different parcels with a total of 23 different property owners. All 35 properties are zoned Agriculture (AG).
- ◊ The total acreage of the 35 parcels involved in the project is 1332.589 acres. The project will be built on approximately 850 acres of land that is leased out of the 1332.589 acres.
- ◊ The property breakdown by family is as follows:

PROPERTY OWNER	TOTAL ACREAGE	PERCENTAGE
Bailey	267.070	20.04%
Barber	104.192	7.82%
Brown	22.750	1.71%
Cain	42.358	3.18%
Etohson	309.611	23.23%
Helser	217.890	16.35%
Pruitt	161.091	12.09%
Reason	21.460	1.61%

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Relchart	80.000	6.00%
Richwine	76.267	5.72%
Wittkamper	30.000	2.25%
TOTALS	1332.589	100.00%

- ◇ The proposed project is a solar photovoltaic (PV) electric generation facility and will have an installed capacity of up to 120 MWAC. Power is generated by the panels as direct current (DC), which is then converted to alternating current by inverters. The total production by the panels may be up to 158 MWDC
- ◇ The proposed project is located on 35 subject parcels which total 1332.589 acres. The proposed project will be constructed on approximately 800 acres of the 1332.589 acres. The subject parcels are located between West 1000 North and West 1300 North, north to south, and between North 600 West and North 350 West, east to west.
- ◇ The main components of the proposed project include solar PV panels, racking to fasten and support the panels, a tracking system, transformers and inverters, foundations and steel piles, electrical cabling and conduits, and perimeter fencing, site access and internal roads.
- ◇ The proposed project will contain approximately 411,453 solar modules, 58,025 steel piles, approximately 40,200 linear feet of electrical cable and conduit, 104,550 linear feet of perimeter fencing (7 foot tall cattle fence), and approximately 8.3 miles of internal road access.
- ◇ The solar modules will weigh approximately 53 to 58 pounds, will measure approximately 77 inches by 39 inches, and will mainly be comprised of non-metallic materials such as silicon, monocrystalline glass, composite film, plastic, and epoxies, with an anodized aluminum frame.
- ◇ The site will be staffed by 2 to 3 solar technicians from 7am to 4pm, Monday through Friday. Technicians will be dispatched on weekends and holidays to respond to material equipment issues and emergencies. Vehicular traffic on the site will likely be light-duty pickups or other passenger vehicles. Emergency contact numbers will be posted at the site for after-hours reporting.
- ◇ Routine equipment maintenance will be conducted and generally includes daily general site condition inspections, monthly substation inspections, semi-annual inverter inspections and air filter replacements, annual racking, cable termination and

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fastener checks, and as needed checks of facility security cameras and entrance lighting.

- ◇ The petitioner has submitted as part of the application the required Decommissioning Plan, the required Soil Reclamation Plan, the required Equipment Specification Sheets, the required Operation and Maintenance Plan, and the required Site Plan.
- ◇ The Decommissioning Plan shall come into effect if the Project Facilities fail to produce electricity for 12 consecutive months, unless a plan outlining the steps and the schedule for returning the Project Facilities to service is submitted and approved by the BZA within the 12 month discontinuation period.
- ◇ The Removal Bond required as part of the Decommissioning Plan, shall be equal to the estimated amount by which the cost of removing the Project Facilities exceeds the salvage value of such Project Facilities (Net Removal Costs). Lone Oak Solar has estimated that cost to be \$1,459,020.
- ◇ The petitioner has voluntarily offered 100 foot setbacks from occupied buildings and landscaping in particular locations throughout the project. All required building setbacks will be adhered. Additional landscaping and buffering for the project was agreed upon and an updated Landscape and Buffering plan was submitted on April 18.
- ◇ The Swanfelt Regulated Drain is an open ditch that meanders through a large portion of the project. No development will be located within 75 feet of the top of the bank of the Swanfelt Regulated Drain and no construction will be conducted in the Special Flood Hazard Area (SFHA), which begins just west of North 500 West, and continues downstream. The Indiana Department of Natural Resources (IDNR) has estimated the "flood zone" upstream of the SFHA. No development will be conducted in the designated "flood zone" developed by IDNR.
- ◇ There are numerous sub-surface Regulated Drains located throughout the project area. The project will not be located within the easement of all Regulated Drains.
- ◇ Full construction activities will likely start in 2022 to meet a 2023 commercial operation date. The construction will take approximately 10 to 12 months (including site roads, piles, racking, panels, electrical cabling and grid infrastructure). The construction will be completed in one phase.

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- ◇ Cabling will need to cross public roads, but will not be placed in any roadway easements.
- ◇ Lighting will be limited to motion activated lights for security purposes.
- ◇ Foliage within the fenced-in area is anticipated to grow between 1 to 3 feet tall.
- ◇ The panels, at their highest point, may be up to 15 feet above the ground. The panels are generally mounted to the racking at approximately 6 to 7 feet off the ground.

LAND USE & DEVELOPMENT CODE

- ◇ Article 3.4 "*Agriculture District*" of the Land Use and Development Code states that the front yard setback when adjacent to an Arterial Road is 150 feet, the front yard setback when adjacent to a Collector Road is 100 feet, and when adjacent to a Local Road is 35 feet. The side yard setback is 25 feet and the rear yard setback is 30 feet.
- ◇ Article 6.29, SE-02 "*Solar Energy System Standards*" of the Land Use and Development Code states that in the Agriculture (AG) Zoning District, Large-Scale Solar Energy Systems are permitted with a Special Use.
- ◇ Article 6.7 (B) "*Buffer Yard Standards*" of the Land Use and Development Code states that there is no buffer yard requirements between Agriculture (AG) Zoned parcels and there is not buffer yard requirements between Agriculture (AG) and Conservation Residential (CR) Zoned parcels.
- ◇ Article 11.8 - C "*Special Uses*" of the Land Use and Development Code states that "*The Board may impose such reasonable conditions upon its approval as it deems necessary to find that the criteria for approval in Section 11.8(A) will be served*" (Section 11.8(A) is the Findings of Facts for Special Uses).

THOROUGHFARE PLAN

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- ◇ The Madison County Thoroughfare Plan defines West 1300 North as a Local Road, State Road 28 as an Arterial Road, West 1100 North as a Collector Road, West 1000 North as a Local Road, North 350 West as a Local Road, North 400 West as a Local Road, North 450 West as a Local Road, North 500 West as a Collector Road, North 550 West as a Local Road, and North 600 West as a Local Road. Arterial Roads are to have a one-hundred (100) foot right-of-way measured fifty (50) feet from the center of the road. Collector Roads are to have eighty (80) foot right-of-way measured forty (40) feet from the center of the road. Local Roads are to have sixty (60) foot right-of-way measured thirty (30) feet from the center of the road.

ZONING CLASSIFICATION

- ◇ All 35 parcels in the proposed project area are zoned Agriculture (AG). The Ag One, LLC property, located on the east side of North 400 West, approximately ½ mile north of West 1100 North is zoned General Industrial (GI). Parcels in and around the Town of Dundee (as indicated on the attached map) is zoned Conservation Residential (CR). All other parcels surrounding the proposed project, and within the specified location of the area required to receive notice, are zoned Agriculture (AG).
- ◇ The proposed project area and the surrounding adjacent parcels have a mixed use of agriculture and residential, with one industrial use.

ADDITIONAL REQUIREMENTS IF APPROVED

- ◇ Before the proposed project may be constructed, Drainage Board approval is required. No Improvement Location Permits may be issued until Drainage Board approval is given. The construction of fences, moving dirt, concrete pads, or establishing drives within the project area do not require an Improvement Location Permit. Connecting a drive to a road, or a road cut, does require a Driveway Permit.

RECOMMENDATION

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Updated: May 24, 2019

- ◊ Staff recommends approval of the Special Use.

FINDINGS of FACT for SPECIAL USE

1. *Would the approval be injurious to the public health, safety, morals, and general welfare of the community?*
No, there will be no injury if the attached conditions are adopted. The proposed project will comply with all aspects of the Land Use and Development Code, will obtain all appropriate approvals from the Indiana Department of Environmental Management (IDEM) and the Madison County Soil and Water Conservation District, and will comply with all applicable local, state and federal construction and drainage requirements. The project includes perimeter security fencing with controlled points of ingress/egress and a secondary access location to facilitate emergency response. Twenty-four hour security monitoring will be in place during construction and while in operation.
2. *Will the requirements and development standards set forth in the district for such exception be met?*
Yes. The petitioners have submitted two petitions for variance requests. The first is requesting the removal of building setback lines along adjacent properties in which the project will be located. The second request is an extension of the three (3) years maximum in order to begin construction.
3. *Will the proposed use subvert and permanently injure other property or uses in the same district and vicinity?*

No, the proposed use will not subvert and permanently injure other property or uses in the same district. Agriculture uses have extended to energy production for decades. The harnessing of solar energy is a permitted use in the Agriculture (AG) zoning district with the approval of a Special Use.

An analysis of the impact of property values that a major solar energy project may have on nearby landowners has been conducted by numerous independent appraisers throughout the country. A report by Cohn Reznick, a Real Estate Valuation company conducted a property value impact study on the Newark Road Solar Project in Kendall County, Illinois and determined there was no evidence of a Large Scale Solar Farm having an adverse impact on property values for properties near the Solar Farm. Cohn Reznick also conducted a study looking at nine different Large Scale Solar Farms, four of which are in Illinois, four of which are in Indiana, and one of which is in Minnesota. The same

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determination was made that there is no evidence that Large Scale Solar Farms have an adverse impact on property values. Marous & Company conducted an independent Market Impact Analysis for the proposed Lone Oak Solar Energy Project, reaching the same conclusion determined in the aforementioned studies. A study completed in May 2018 by Project Director Dr. Varun Rai of the University of Texas at Austin holds a differing viewpoint in comparison to the numerous Market Impact Analysis Studies. Specific conditions regarding setbacks and distance of residential structures from solar panels may negate concerns addressed by the University of Texas at Austin study. As distance is increased between residential structures and solar panels, the University of Texas at Austin study has similar findings to those produced by the extensive Cohn, Reznick, Marous & Company study. Although each study referenced is an extensive study with similar findings, none of the studies necessarily take into account the unique nature of each parcel of real estate and vicinity. Based on the similarities of each report, the study prepared by Cohn Reznick Marous & Company is complete, in line with each reviewed study, and should be adopted if the attached conditions are adopted.

Surface drainage patterns will not be disrupted by the development and before construction may begin, Drainage Board approval will be required to insure sub-surface drainage tiles and surface drainage is not adversely impacted. Between the rows of panels and under the panels, vegetation will be planted that will reduce the runoff coefficient releasing less water onto neighboring parcels. Lone Oak Solar LLC has stated that all private drain tiles damage during construction will be repaired as damage occurs, and any issues that appear post-construction will be repaired as quickly as possible at the project owner's expense.

4. *Will the proposed use be consistent with the character of the zoning district and the Comprehensive (Comp) Plan?*

Yes, the project will maintain the overall rural character and the overall environmental integrity in Madison County, both of which are stated goals in the Madison County Comprehensive Plan. The proposed project directly enhances and preserves agricultural activities as it will not result in a permanent loss of agricultural land, at the end of the project's life the project area will be fully restored per the Decommissioning Plan Agreement and the Soil Reclamation Plan, the property(s) that are part of the project will remain zoned Agriculture so the property will not need to be rezoned back to Agriculture, and the soils will be preserved resulting in fertile soils at the end of the projects life. The Special Use will insure that the agricultural property in the project area is not subdivided for the construction of new homes, resulting in the permanent reduction of agricultural land. The scale of the project does require modification in order to be completely consistent with the Comprehensive Plan. The attached conditions will establish that consistency with the Comprehensive Plan.

MADISON COUNTY BOARD OF ZONING APPEALS
CONDITIONS FOR ADOPTION OF FINDINGS OF FACT
2019-SU-001, 2019-V-005, 2019-V-006

May 28, 2019

The Madison County Board of Zoning Appeals ("BZA") requires the following conditions for the approval of 2019-SU-001, 2019-V-005, and 2019-V-006, and the findings of fact by contained therein are contingent on the below listed conditions:

1. Except as noted below, Petitioner shall comply with all terms of the Decommissioning Plan Agreement as submitted to the case file.
2. No solar panel shall be located closer than 500 feet from an existing non-participating residential structure or closer than 200 feet from the property line of a non-participating owner; provided, however, that solar panels may be located no closer than 250 feet from a non-participating residential structure or closer than 100 feet from a non-participating owner's property line only if (a) a non-participating owner consents, in writing, to the placement of solar panels no closer than 250 feet from that owner's residential structure or no closer than 100 feet from a non-participating owner's property line; and, (b) the written consent described herein is recorded with the Madison County Recorder's office, with a copy of the recorded instrument provided to the Madison County Planning Department and Madison County Plan Commission. Notwithstanding the above, all solar panels shall meet the Madison County setback requirements of (i) 25 feet from side yards, (ii) 30 feet from rear yards, (iii) 150 feet from arterial roads, (iv) 100 feet from collector roads; and (v) 25 feet from local roads.
3. Landscaping shall be installed in compliance with the Petitioner submitted Lone Oak Solar Landscape Plan dated April 18, 2019 ("Landscape Plan"), with the exception that, when requested by a non-participating abutting landowner with a sight line to a solar panel in question, evergreen trees or vegetation shall be installed in place of the vegetation specified in the Landscape Plan.
4. For repair of drainage infrastructure or systems damages by any cause connected with the Project, Petitioner shall restore the drainage infrastructure or system to pre-existing conditions or better within a period of three (3) months after receipt of notice of such damage, unless such repair is rendered impractical by weather or other natural force. Petitioners shall be responsible for all expenses related to repairs, relocations, reconfigurations, and replacements of drainage infrastructure and systems that are damaged as a direct result of the Project. Petitioner shall post a "5A" surety bond in an amount to be determined by the Madison County Drainage Board ("Drainage Board"), payable to the Drainage Board to address any need for drainage tile repair, replacement or re-routing caused by construction activities or installation of the Project, such bond to be posted within 45 days after commencement of Project commercial operations

date and to remain in effect for a period of five (5) years thereafter. The Drainage Board shall determine and adjudicate whether claims brought by an adjacent property owner for damage to drainage tile directly result from the project based on substantial evidence.

5. Petitioner shall fully comply with Indiana Code requirements regarding legal drains except as otherwise approved by the Drainage Board and any other necessary bodies, including, but not limited to, the Storm Water Management Ordinance.

6. Petitioner shall provide equipment specifications for the solar energy system to the Madison County Planning Executive Director prior to the issuance of Improvement Location Permits for the final site design and construction of the Project.

7. Petitioner shall not construct any additional phases or expand the Loan Oak Solar Project anywhere in Madison County, with the sole exception of expansion provided for by agreement of non-participating owners, as described in Condition #2 herein, provided, however, that the overall power capacity of the Project shall not exceed the power capacity as described in Petitioner's initial petition contained in the case file.

8. Petitioner shall repair documented damages to County roads damaged during construction or operations to the pre-construction condition pursuant to the direction of the Madison County Highway Superintendent. Petitioner shall post a "5A" surety bond in an amount to be determined by the Madison County Board of Commissioners to address said repairs.

9. Unless otherwise stated in these conditions, Petitioner shall comply with the terms of the Property Operation and Maintenance Plan as submitted to the case file.

10. Upon completion of construction of the Project, a representative from the Operator shall conduct, at Operator's expense, annual training and drills with local emergency responders.

11. Petitioner shall pursue an agreement with the Drainage Board and Madison County Surveyor ("Surveyor"). Petitioner shall comply with the reasonable direction of the Surveyor regarding (a) retention at Petitioner's sole expense of an appropriate inspector, including a "not to exceed" budget; (b) notification to the Surveyor when all drainage improvements and worth within the public right-of-way have been completed and inspected by the inspector; and (c) timeline and process for repair of any damage caused by the Project.

12. Prior to initiating construction, petitioner will engage an independent third party to develop a groundwater monitoring program within the fence line of the Project, which will include, but not be limited to, establishment of baseline levels for constituents of concern and monitoring every two (2) years for the life of the Project. The results of the monitoring program may be shared with land owners as required by the operative Lease and Easement Agreements and shall be provided to any necessary government agencies as required by law.

13. Prior to the issuance of an Improvement Location Permit, Petitioner shall provide the Executive Director a topographic and hydrology study of the Project site.

14. Noise levels produced by the Project under normal operating conditions shall, in no event, exceed 45dB(A) L_{eq} (1 hour) at occupied residences of non-participating land owners.

15. No lighting will be installed or operated on the Project site other than as needed for 1) security lighting at the Project gate(s), 2) emergency lighting at inverters and substations as needed and otherwise in the Project area for emergency responses, 3) within the substation footprint, 4) inspection/repair purposes, 5) internal, external, and down lighting of the O&M building, and 6) as otherwise required by applicable law.

16. Petitioner shall post a "5A" surety bond, in an amount no less than \$5,608,003, the estimated cost of decommissioning the project as provided by Petitioner's Decommissioning Plan (See Section 4.1, Table 3), payable to the Madison County Plan Commission, for possible decommissioning costs. The estimated cost of decommissioning the project shall be reevaluated every three (3) years, with the amount of the surety payable to the Madison County Plan Commission adjusted as necessary to fully secure the Plan Commission for the full estimated cost of decommissioning.

17. All required fencing will be 6' chain link fence with barbed wire utilized where appropriate.

18. The Project shall be complete and operational on or before December 31, 2023.

ADOPTED THIS 28th DAY OF MAY, 2019.

MADISON COUNTY BOARD OF ZONING APPEALS

/s/ John Simmermon
JOHN SIMMERMON, VICE CHAIR

BZA - Minutes – June 28th, 2022 Board Meeting

1333

The Madison County Board of Zoning Appeals met on the above date at 9:00 A.M. with, Chairman, John Simmermon, presiding.

Members Present: Chairman – John Simmermon, Vice Chairman – Curt Stephenson, Jerry Stamm, and Cory Bohlander

Members Absent: Lisa Hobbs

Staff Present: Rachel Christenson- Interim Director, Stacey Hinton and Jeff Graham

CURRENT BUSINESS

1. Prayer – John Simmermon
2. Pledge of Allegiance
3. Roll Call – 4 present, 1 absent (Lisa Hobbs)
4. April 26th, 2022 Minutes – Member Stamm made a motion to accept the April 26th, 2022 minutes. Seconded by Member Bohlander. Voice call vote taken and was unanimous - **Minutes approved.**

May 24th, 2022 Minutes - Member Stamm made a motion to accept the Mary 24th, 2022 minutes. Seconded by Member Stephenson. Voice call vote taken and was unanimous. **Minutes Approved**

NEW BUSINESS

1. Petition: 2022-V-012
Address: 7532 Sprague Street, Anderson
Location: Adams Township, District 1 Commissioner
Petitioner: Fred & Mary Spitz
Landowners: Fred & Mary Spitz
Zoning: CR
Request: A Variance to allow maximum lot coverage to exceed the 30% lot coverage in the Conservation Residential (CR) Zone District

Interim Director Christenson presented the staff report with a recommendation for denial. Request is to allow the maximum lot coverage to exceed 30 % of the lot coverage. The petitioner did file a variance a few months ago for setback approval and was approved. Petitioner currently has 32% lot coverage and adding the structure would put them at 38% percent. One of the concerns is storm water runoff. Petitioner was present and spoke to board members. No remonstrators were present.

BZA - Minutes – June 28th, 2022 Board Meeting

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After discussion was had among board members, Interim Dir Christenson and petitioner, Member Stephenson made a motion to deny Petition 2022-V-012 per Staff Findings of Fact. Seconded by Member Stamm. Roll Call vote taken and was unanimous. **Petition 2022-V-012 Denied.**

FINDINGS of FACT for VARIANCE

- 1. *Will the approval be injurious to the public health, safety, morals, and general welfare of the community?*

Yes. An increased lot coverage and impervious surface area could potentially cause issues with stormwater runoff and negatively impact drainage, which could adversely affect the public health, safety, morals, and general welfare of the community.

- 2. *Will the use and value of the area adjacent to the property included in the variance be affected in a substantially adverse manner?*

Yes. An increase lot coverage and impervious surface area would negatively impact the adjacent properties with potential drainage issues.

- 3. *Will the strict application of the terms of the zoning ordinance result in a practical difficulty in the permitted use of the property?*

No. The existing garage and impervious surface is appropriate for the size of the lot and allows adequate use of the site.

- 2. *Petition: 2022-V-013*
Address: 1359 E Zell Road, Summitville
Location: Van Buren Township, District 3 Commissioner
Petitioner: Terry Delong
Landowners: Terry Delong
Zoning: R2
Request: A Variance for side yard setback relief in the Single-Family Residential (R2) Zone District

Interim Director Christenson indicated to the board that Mr. Delong has asked to be continued until the July meeting. Board approved.

- 3. *Petition: 2022-SU-009*
Address: 2639 North 300 East, Anderson
Location: Lafayette Township, District 3 Commissioner
Petitioner: Kay Lorenzoni
Landowners: Kay Lorenzoni
Zoning: CR
Request: A Special Use to run a grooming business out of her home in the Conservation Residential (CR) Zone District

BZA - Minutes – June 28th, 2022 Board Meeting

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Interim Director Christenson presented the staff report with a favorable recommendation. Request is to allow a Home Occupation Type II – pet grooming business in the Conservation Residential Zone District. Interim Director Christenson stated the Petitioner has submitted a very thorough business plan to the Planning Commission. Petitioner was present with her husband and answered questions the board had for her.

After discussion was had among board members, petitioner and Interim Director Christenson, Member Stamm made a motion to approve Petition 2022-SU-009 along with the submitted business plan and Staff Findings of Fact. Seconded by Member Stephenson. Roll Call vote taken and was unanimous. **Petition 2022-SU-009 Approved with Business Plan submitted and Staff Findings of Fact**

FINDINGS of FACT for SPECIAL USE

1. *Will the approval be injurious to the public health, safety, morals, and general welfare of the community?*

No. The proposed Type II home occupation will not negatively impact the public health, safety, morals, and general welfare of the community, and will be in harmony with surrounding properties.

2. *Will the requirements and development standards set forth in the district for such exception be met?*

Yes. As presented, the existing improvements on the property meet the standards of the Madison County Land Use Development Code. All future improvements will be subject to the applicable development standards.

3. *Will the proposed use subvert and permanently injure other property or uses in the same district and vicinity?*

No. As present, and assuming that, the conditions detailed herein are met, no injury will occur to surrounding properties in the same district and vicinity.

4. *Will the proposed use be consistent with the character of the zoning district and the Comprehensive (Comp) Plan?*

Yes, As presented the condition, and the nature of the proposed business are in line with the County's comprehensive plan.

Old Business

4. Petition: 2019-SU-005
 Address: N/A
 Location: Multiple locations between West 1150 North and West 1300 North (north to south and North 350 West and North 550 West (east to west) – please see the Site Plan for precise locations
 Petitioner: Lone Oak Solar, LLC, c/o Katya Samoteskul
 Landowners: Multiple Landowners
 Zoning: AG
 Request: A Special Use to modify Condition #19 regarding completion and operational date to “The Project shall be complete and operational on or before December 31, 2025” in the Agriculture (AG) Zone District

BZA - Minutes – June 28th, 2022 Board Meeting

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Interim Director Christenson indicated that the petition 2019-SU-005 is a petition filed by Lone Oak Solar. This is a modification of the Condition #19 on the 2019-SU-005 case and it would be replaced with the words "The Project shall be complete and operational on or before December 31, 2025. Interim Director Christenson gave a brief history of the petition to refresh boards member and explained how the petition modification would be heard and along with public comments.

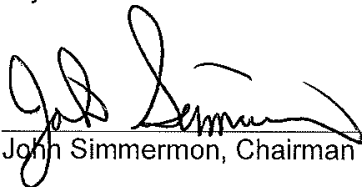
Petitioner, Lone Oak Solar's representative Attorney Mary Solada, was present and spoke to board members along with Hannah Pavolcyk who is the Indiana Development Manager for Invenergy. Hannah Pavolcyk stated to board members they will not and do not plan to pursue a tax abatement for Lone Oak Solar. It is not necessary for the project anymore given the current market. Remonstrators were present and spoke as well.

After discussion was had among board members, Interim Dir Christenson and Petitioner, Member Stephenson made a motion to Deny the modification of Petition 2019-SU-005. Seconded by Member Bohlender. Roll Call vote taken, 3 – Yes and 1- No (Jerry Stamm). **Petition 2019-SU-005 Modification, Denied**

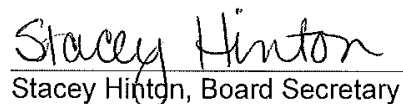
Miscellaneous

Adjournment

Member Stephenson made a motion adjourn. Seconded by Member Stamm. Meeting adjourned at 10:29:54 am. **Meeting Adjourned**



John Simmermon, Chairman



Stacey Hinton, Board Secretary

Exhibit E to Lone Oak Complaint
First Amended 2022 Trial Court Petition (Internal Exhibits Omitted)

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Filed: 8/26/2022 5:00 PM
Judge, Circuit Court
Grant County, Indiana

STATE OF INDIANA)	IN THE GRANT CIRCUIT COURT
) SS:	
COUNTY OF MARION)	CAUSE NO. 27C01-2207-PL-000052
LONE OAK SOLAR ENERGY LLC,)	
)	
)	
Petitioners,)	
)	
v.)	
)	
BOARD OF ZONING APPEALS OF)	
MADISON COUNTY)	
)	
Respondent.)	

FIRST AMENDED VERIFIED PETITION FOR JUDICIAL REVIEW

Petitioner, Lone Oak Solar Energy LLC (“Lone Oak”), by counsel and pursuant to Indiana Code § 36-7-4-1600 *et al.*, respectfully submits its First Amended Verified Petition for Judicial Review and states as follows:

NATURE OF THE CASE

1. This appeal seeks judicial review of the Madison County Board of Zoning Appeals’ (“BZA”) arbitrary and capricious decision denying Lone Oak a simple extension of time to construct its previously-approved solar farm, which was litigated for two years.
2. By way of background, Lone Oak originally sought to develop a solar farm on approximately 800 leased acres of land in Madison County (the “Project”) back in March 2019.

3. After hearing a wide swath of evidence, and over objections from a group of remonstrators (the “Remonstrators”), the BZA ultimately granted Lone Oak a Special Use for the Project (the “Special Use Decision”).

4. The Remonstrators filed petitions for judicial review challenging the Special Use Decision, which the trial court denied on November 2, 2020. The Remonstrators then appealed to the Indiana Court of Appeals, yet failed again, and the Indiana Supreme Court denied transfer on October 21, 2021. *See Burton v. Bd. of Zoning Appeals of Madison Cnty.*, 174 N.E.3d 202, 207–09 (Ind. Ct. App.), *transfer denied*, 176 N.E.3d 443 (Ind. 2021). Lone Oak expended hundreds of thousands of dollars and thousands of personnel hours to obtain the Special Use and litigate the BZA’s decision on the merits.

5. Lone Oak could not secure financing to move forward with construction of the Project so long as litigation challenging the Special Use was pending. Adding further complications was the global supply chain shortage running contemporaneously with the litigation resulting in part from the COVID pandemic.

6. Given these circumstances, once the challenge to the Special Use was finally decided in its favor, and pandemic-related supply chain issues were alleviated to some degree, Lone Oak petitioned the BZA to modify a condition to the previously granted Special Use (the “Condition”). The Condition required the Project to be complete and operational by December 31, 2023, which is now no longer possible given the delays encountered, despite Lone Oak’s best efforts.

7. The BZA arbitrarily and capriciously denied Lone Oak's petition to modify the Condition without any rational basis whatsoever, leading Lone Oak to file this Verified Petition for Judicial Review.

FACTUAL BACKGROUND

8. In March 2019, in furtherance of the Project, Lone Oak filed three applications (collectively "the Original Applications") with the BZA:

- a. A Special Use Application seeking to allow the Project on approximately 800 acres of land zoned for agriculture, cause number 2019-SU-001;
- b. An application seeking to remove the mandatory 25-to-30-foot property-line setbacks for structures between participating landowners so that the Project could be built as a seamless solar field, cause number 2019-V-005; and
- c. An application seeking to extend the three-year maximum construction period for the Project, cause number 2019-V-006.

9. The BZA held public hearings on the Original Applications on April 23, 2019, May 16, 2019, and May 28, 2019.

10. Lone Oak presented evidence supporting the Project during the public hearings, while the Remonstrators submitted contrary evidence.

11. The BZA weighed the evidence and ultimately concluded that the Project met the Special Use criteria. The BZA adopted Findings of Fact required to approve Special Use applications, approving the Special Use by a 3-1 vote and the

Variances by a 4-0 vote. A true copy of the Special Use Decision on the Original Applications is attached as Exhibit 1.¹

12. The BZA imposed a number of conditions for the approval of the Original Applications, including that the Project be complete and operational on or before December 31, 2023.

13. In response to conditions relating to setbacks, Lone Oak filed a second set of Applications (“Secondary Applications”), identical to the Original Applications, but applied to an additional 350 acres of land. The BZA set a hearing on the Secondary Applications for July 30, 2019.

14. Before the BZA held the public hearing on the Secondary Applications, the Remonstrators filed their Verified Petition for Judicial Review of the BZA’s decision approving the Original Applications on June 27, 2019. As a result, the BZA voted to continue the hearing on the Secondary Applications to the August 29, 2019 public hearing.

15. At the August 29, 2019 public hearing, the BZA announced that its approval of the Original Applications was final and voted unanimously to continue the matter of the Secondary Applications until the September 24, 2019 public hearing.

¹ The BZA Decision was later amended to correct a scrivener’s error. Exhibit 1 includes the original and Amended Decision.

16. At the conclusion of the September 24, 2019 public hearing, the BZA approved the Secondary Applications by a 3-2 vote. A true copy of the Special Use Decision on the Secondary Applications is attached as Exhibit 2.

17. The Remonstrators filed a Verified Petition for Judicial Review on the Secondary Applications on October 24, 2019.

18. The Petitions for Judicial Review on the Original and Secondary Applications were consolidated before one Indiana trial court. On July 9, 2020, the trial court held a hearing on the Petitions.

19. On November 2, 2020, the trial court entered detailed findings of fact and conclusions of law in two separate orders denying the Remonstrators relief and affirming the approval of both the Original and Secondary Applications. A true copy of the Findings of Fact and Conclusions of Law is attached as Exhibit 3.

20. The Remonstrators appealed the trial court's decision, but the Court of Appeals (in a published decision) affirmed the trial court in all respects on June 21, 2021. *See Burton v. Bd. of Zoning Appeals of Madison Cnty.*, 174 N.E.3d 202, 207-09 (Ind. Ct. App.), *transfer denied*, 176 N.E.3d 443 (Ind. 2021).

21. The Indiana Supreme Court denied transfer on the Remonstrators' Petitions on October 21, 2021—approximately two years after the Original Applications were approved.

22. On May 20, 2022, Lone Oak submitted a petition to modify the BZA-imposed Condition, which requires the Project to be complete and operational on or

before December 31, 2023 (the “Modification Petition”). Lone Oak’s Modification Petition is attached as Exhibit 4.

23. In its Modification Petition, Lone Oak requested that the BZA extend the deadline to complete construction to the later of i) December 31, 2025, or ii) two years after issuance of a final non-appealable order of a court of competent jurisdiction affirming the condition modification by the BZA.

24. Lone Oak submitted proposed findings of fact, explaining that the “time-consuming litigation caused significant delay beyond the control of Lone Oak” and “a series of time-consuming and unprecedented development-related challenges have occurred resulting in severe global supply chain challenges beyond the control of Lone Oak,” referencing the recent global pandemic. The proposed findings of fact are attached as Exhibit 5.

25. The BZA held a hearing on the Modification Petition on June 28, 2022 (“Modification Hearing”).

26. At the Modification Hearing, Lone Oak explained that the Project itself had not changed, but the litigation regarding the Project since its initial approval prevented it from obtaining financing. In short, investors were unwilling to provide financing for a project until the litigation was resolved.

27. In addition to the financing issues, Lone Oak also testified and presented evidence on the supply chain problems caused by the global pandemic that have affected construction.

28. Rachel Christenson, Madison County's Interim Planning Director, testified in favor of Lone Oak and in support of the extension to complete construction.

29. The only evidence presented that purportedly opposed the modification request did not attack the proposed modification at all. Instead, the opposing evidence attempted to attack the underlying Special Use Decision collaterally. This opposing evidence provided no basis to deny Lone Oak's extension request and was irrelevant to the proposed modification at issue.

30. The BZA failed to consider the reasons for the delay (which were outside Lone Oak's control) and the Planning Director's recommendation. Instead, the BZA took Lone Oak's modification request as an opportunity to re-determine its previous Special Use Decision—which is improper under Indiana law.

31. During the Modification Hearing, BZA Member John Simmermon ("Simmermon") questioned Lone Oak about the effect the extension would have on participating landowners—demonstrating some form of improper *ex parte* communications—and BZA Member Curt Stephenson ("Stephenson") commented that he had always been opposed to the Project and therefore moved to deny the extension.

32. Despite the testimony and evidence presented, the BZA voted 3-1 to deny the Modification Petition to extend the construction deadline. One member of the BZA who had voted in favor of the solar project was not able to attend the hearing.

33. As of the date of this filing, the BZA has not issued any Findings of Fact and Conclusions of Law on Lone Oak's Modification Petition.

34. The BZA's decision was contrary to the evidence before the BZA, the BZA's Rules and Procedures, and Indiana law.

THE PETITION IS TIMELY

35. This Verified Petition is timely because it is filed within thirty (30) days after the date the BZA made its decision on June 28, 2022. Indiana Code § 36-7-4-1605.

MAILING ADDRESSES

36. Lone Oak's mailing address is One South Wacker Drive, Ste. 1800, Chicago, Illinois 60606.

37. The BZA's mailing address is 16 E. 9th Street, Box 13, Anderson, Indiana 46016.

PARTICIPANTS AT THE BZA HEARING

38. The persons who participated in the zoning hearing, as described in I.C. § 36-7-4-1603(a)(2), are:

Hannah Pawelczyk
Lone Oak Solar Energy LLC
One South Wacker Drive, Ste. 1800
Chicago, Illinois 60606

Mary E. Solada (Attorney for Lone Oak)
Dentons Bingham Greenebaum LLP
2700 Market Tower
10 West Market Street
Indianapolis, IN 46204

Bethany Keller
3764 W. State Road 28
Alexandria, IN 46001

Katrina Hunter
10040 N. 500 W.
Frankton, IN 46044-9436

Sam Heiser
12691 E. 246th Street
Cicero, IN 46034

Melissa Rubrecht
10636 N. 400 E.
Alexandria, IN 46001

F. Denise Spooner
139 W. Oak Street
Alexandria, IN 46001

Peggy Roby
4285 E. 1000 N.
Alexandria, IN 46001-8281

Lee Walls
4955 W. 1000 N.
Frankton, IN 46044

Kevin Kelich
10413 N. 700 W.
Elwood, IN 46036-9045

Additionally, the following individuals submitted emails to the BZA in relation to the Project: Mary Munson, Jon Canfield, RJ Compton, Mike Thomas, Teresa Yates, Nancy McDonald, Jean Mills, Robert Mills, Lynn Thornburg, Josh Harris, and April Singer.

There may be other persons described in the above statute whose identity cannot be determined until preparation of the Record of the Proceedings. Lone Oak

reserves the right to amend this Petition to include such persons upon completion of the Record of the Proceedings.

VENUE

39. Venue is proper in this Court because the land affected by the BZA's zoning decision is located in this judicial district. I.C. § 36-7-4-1606(a).

EXHAUSTION OF ADMINISTRATIVE REMEDIES

40. Lone Oak has exhausted all administrative remedies and is entitled to file this Petition pursuant to I.C. § 36-7-4-1604.

STANDING

41. Lone Oak has standing to obtain judicial review of the BZA's decision as the applicant to whom the BZA's decision is specifically directed and is aggrieved by the decision. I.C. § 36-7-4-1603.

BASIS FOR OVERTURNING THE BZA'S DECISION

42. The BZA's denial of the modification request is arbitrary and capricious because Lone Oak met the requirements necessary for an extension, and no evidence was presented to the contrary.

43. Nothing about postponing the Project by two years after the initially contemplated completion date would be injurious to the public health, safety, morals, and general welfare of the community.

44. The Project as originally presented to the BZA as part of Lone Oak's Original and Secondary Applications—which the BZA found satisfied the Special Use

criteria—has not changed, and there is no rational basis for the denial of the Modification Petition.

45. The BZA’s denial is also contrary to law because the Modification Hearing did not comply with due process. Board Members Simmermon and Stephenson were not impartial to this proceeding and should have been disqualified.

46. As a result, the BZA lacked the requisite quorum to vote on the Modification Petition. *See* Madison County, Indiana Board of Zoning Appeals Rules and Procedure, § 3.5, attached as Exhibit 6 (“A quorum consists of a majority of the entire membership of the Board. No action of the Board is official unless approved by a quorum of its members.”).

47. Additionally, the BZA’s Rules and Procedures Section 5.6 provides that “[n]o person may communicate with any member of the Board with the intent to influence the member’s action on a matter pending before the Board.”

48. Simmermon’s line of questioning and commentary about the extension’s effect on participating landowners demonstrates improper *ex parte* communications influenced his vote. Therefore, Simmermon’s vote should be disregarded.

49. Similarly, Board Member Stephenson’s vote should also be disregarded because Stephenson admitted he could not be impartial, as he had always been opposed to the Project.

50. The BZA’s decision was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law[.]” I.C. § 36-7-4-1614(d)(1).

51. The BZA's decision was "contrary to constitutional right, power, privilege, or immunity[.]" I.C. § 36-7-4-1614(d)(2).

52. The BZA's decision was "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right[.]" I.C. § 36-7-4-1614(d)(3).

53. The BZA's decision was "without observance of procedure required by law[.]" I.C. § 36-7-4-1614(d)(4).

54. The BZA's decision was "unsupported by substantial evidence." Ind. Code § 36-7-4-1614(d)(5).

55. The BZA's decision prejudices Lone Oak because it prevents Lone Oak from constructing the Project, for which it had already received approval and has invested significant time, money, effort, and resources over a number of years.

REQUEST FOR COMPLETE RECORD FOR JUDICIAL REVIEW

56. Pursuant to I.C. 36-7-4-1613(a), Lone Oak requests that the BZA prepare and certify a copy of the BZA's record for judicial review and to deliver the record to Lone Oak's counsel so that Lone Oak can transmit the BZA record to the Court within thirty (30) days after filing this Verified Petition. If the BZA fails to timely transmit the BZA's record to Lone Oak's counsel, Lone Oak reserves the right to request an extension of time to file the BZA's record with the Court.

WHEREFORE, Lone Oak Solar Energy, LLC, by counsel, respectfully requests that the Court provide the following relief (in various alternatives):


- i. Order the BZA to certify to the Court the entire BZA record for judicial review;
- ii. Set a pretrial conference to establish deadlines for filing briefs and presenting argument to the Court on the issues raised in this Verified Petition;

- iii. Find that Lone Oak has been prejudiced and that the BZA's denial of its Modification Petition was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law";
- iv. Find that Lone Oak has been prejudiced and that the BZA's denial of its Modification Petition was "contrary to constitutional right, power, privilege, or immunity";
- v. Find that Lone Oak has been prejudiced and that the BZA's denial of its Modification Petition was "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right";
- vi. Find that Lone Oak has been prejudiced and that the BZA's denial of its Modification Petition was "without observance of procedure required by law";
- vii. Find that Lone Oak been prejudiced and that BZA's denial of its Modification Petition was "unsupported by substantial evidence";
- viii. Order that Lone Oak may amend its Verified Petition for Judicial Review once it is provided a copy of the BZA's Record and Findings of Fact;
- ix. Remand this case to the BZA with instructions to approve the Modification Petition;
- x. Remand this case to the BZA with instructions to re-vote only on the Modification Petition and make Findings of Fact;
- xi. Exclude Board Members Simmermon and/or Stephenson from participating or having any involvement or input on any remanded proceedings; and/or
- xi. Grant Lone Oak all other just and proper relief in the premises.

VERIFICATION

I affirm, under the penalties for perjury, that the foregoing representations are true.

LOAN OAK SOLAR ENERGY LLC



Michael Kaplan,
Vice President

Respectfully submitted,

/s/ Gregory A. Neibarger

Mary E. Solada, #1899-49

Gregory A. Neibarger, #22095-49

Jessica Laurin Meek, #34677-53

DENTONS BINGHAM GREENEBAUM LLP

2700 Market Tower

10 West Market Street

Indianapolis, IN 46204

Telephone (317) 635-8900

Facsimile (317) 236-9907

*Attorneys for Petitioner,
Lone Oak Solar Energy LLC*

CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on August 26, 2022, a copy of the foregoing was filed with and served by the Court's IEFS and U.S. mail on the following:

Stacey Hinton, Board Secretary of the
Madison County Board of Zoning Appeals
16 E. 9th Street, Box 13
Anderson, Indiana 46016

John Simmermon, Chairperson of
the Madison County Board of
Zoning Appeals
16 E. 9th Street, Box 13
Anderson, Indiana 46016

/s/ Gregory A. Neibarger
*An attorney for Petitioner, Lone Oak
Solar Energy LLC*

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION BY)
LONE OAK SOLAR ENERGY LLC FOR)
CERTAIN DETERMINATIONS BY THE) CAUSE NO. 45255
COMMISSION WITH RESPECT TO ITS)
JURISDICTION OVER PETITIONER'S)
ACTIVITIES AS A GENERATOR OF)
ELECTRIC POWER)

LONE OAK SOLAR ENERGY LLC'S QUARTERLY REPORT:
SECOND QUARTER 2022

This Quarterly Report ("Report") is filed as required by the Commission's Order in this Cause issued on October 29, 2019. This Report provides the required information to the extent such information is known and available. The required information is as follows:

(1) Any changes to the information provided in the Initial Report.

The information provided in the Initial Report, as updated by the Fourth Quarter 2019 Report and the Third Quarter 2021 Report, remains applicable and there are no changes to report at this time.

(2) Any reports of Interconnection System Impact Studies not previously submitted to the Commission.

A Feasibility Study prepared by PJM was attached to the testimony of Katya Samoteskul as Petitioner's Attachment KS-7. The System Impact Study was attached to Lone Oak's Fourth Quarter 2019 Report. The Facilities Study was completed in May 2022 and is attached to this report.

(3) Copy of the ISA as filed with FERC.

Lone Oak Solar Energy LLC executed the ISA and posted \$1,486,380 in cash as security on July 5, 2022. A fully executed copy of the ISA has not yet been received.

(4) Notice of the establishment of an independent financial instrument, including its form and amount.

This has not been established yet. As noted above, cash was posted as ISA security.

(5) Achievement of construction milestones described in the ISA and such events as the procurement of major equipment, the receipt of major permits material to the

construction and operation of the Facility, construction start-up, initial energization, and commercial operation.

Not applicable.

- (6) **When commercial operation is achieved, the nameplate capacity, term and identity of a purchaser for any contracts then existing for utility sales, contingency plans (if any) detailing response plans to emergency conditions as required by state or local units of government, the interconnecting transmission owner and/or PJM, and the Facility's certified (or accredited) dependable capacity rating.**

Not applicable.

VERIFICATION

The undersigned, Michael Kaplan, being first duly sworn upon his oath states that he is the Vice President, Renewable Development for Lone Oak Solar Energy LLC; that he prepared or supervised the preparation of Lone Oak Solar Energy LLC's Quarterly Report: Second Quarter 2022; and that the statements contained therein are true to the best of his knowledge, information and belief.

DocuSigned by:
Michael Kaplan
By: OFF3457607FF0430
Michael Kaplan

STATE OF ILLINOIS)
) SS:
COUNTY OF COOK)

Subscribed and sworn to before me, a Notary Public in and for said State and County, this
1st day of ~~July~~, 2022.
August



Melanie Frank
Signature

Melanie Frank
Printed

My Commission Expires:
6/3/2023

My County of Residence:
COOK

Respectfully submitted,



Michael T. Griffiths (26384-49)
Dentons Bingham Greenebaum LLP
2700 Market Tower
10 West Market Street
Indianapolis, Indiana 46204
Telephone: (317) 968-5565
Fax: (317) 236-9907
michael.griffiths@dentons.com

Attorney for Petitioner,
Lone Oak Solar Energy LLC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was electronically delivered this 1st day of August, 2022 to the following:

Office of Utility Consumer Counselor
115 W. Washington Street, Suite 1500 South
Indianapolis, Indiana 46204
thaas@oucc.in.gov
infomgt@oucc.in.gov



Attorney for Petitioner,
Lone Oak Solar Energy LLC



**Generation Interconnection
Facilities Study Report
For
Queue Project AD1-043
Makahoy 138 kV
Madison County, Indiana
120 MW Energy / 45.6 MW Capacity**

1 Facilities Study Summary

1.1 Project Description

The Interconnection Customer, Invenergy Solar Development North America LLC, proposes to install PJM project AD1-043, a 120 MW (45.6 MW Capacity) Solar generating facility in Madison County, Indiana (Figure 2). The Point of Interconnection (POI) for the generating facility will be a direct connection to the Makahoy 138 kV Station.

1.2 Amendments/Changes to the Impact Study Report

Stability Analysis:

1. PJM completed the stability analysis and determined the following that the AD1-043 project is responsible for the following:

The reactive power capability of AD1-043 does NOT meet the 0.95 lagging PF requirement whereas 0.95 leading PF requirement was met at the high side of the main transformer.

No mitigations were found to be required due to instability; however, it was observed that AD1-043 is deficient in lagging power factor requirement by 2.56 MVar. This may need to be addressed through reactive power compensation.

1.3 Interconnection Customer Schedule

PJM and AEP understand that the Interconnection Customer has requested the following schedule dates:

Receive back feed power from AEP: October 2023

Generation Commercial Operation Date: December 2023

Acknowledgment of the Interconnection Customer's requested back feed and commercial operation dates does not imply AEP's commitment to or guarantee of these dates.

1.4 AEP's Scope of Work to Facilitate Interconnection

- The Makahoy 138 kV Station will be expanded by installing one (1) new 138 kV circuit breaker.
- AEP will expand ~132' of the South East section of the Makahoy 138 kV Station yard and fence by ~40' to the South.
- Associated protection and control equipment, line risers, switches, jumpers, SCADA, and 138 kV revenue metering will also be installed at the Makahoy 138 kV Station. AEP reserves the right to specify the final acceptable configuration considering design practices, future expansion, and compliance requirements.
- AEP will extend one (1) span of 138 kV transmission line for the generation lead going to the AD1-043 site. AEP will build and own the first transmission line structure outside of the Makahoy 138 kV Station fence to which the AEP and AD1-043 transmission line conductors will attach.

- Two (2) diverse fiber-optic paths to the AD1-043 collector station are required. AEP will extend two (2) fiber-optic cables from the Makahoy 138 kV Station control house to the POI. The Interconnection Customer will be responsible for the fiber work on the IPP side of the POI.
- It is understood that the Interconnection Customer is responsible for all of the connection costs associated with interconnecting the PJM project AD1-043 to the AEP transmission system. The cost of the Interconnection Customer's generating facility is not included in this report. Those costs are assumed to be the Interconnection Customer's responsibility.

1.5 Description of Transmission Owner Facilities Included in the Facilities Study

1.5.1 Direct Connection Work

- No Direct Connection work will be required for this project.

1.5.2 Non-Direct Connection Work

- AEP will install one (1) additional 138 kV circuit breaker and one line connection point for AD1-043 at the Makahoy 138 kV Station.
- AEP will install associated line protection and control equipment, line risers, switches, jumpers, and SCADA at the Makahoy 138 kV Station.
- AEP will review the protection and control settings at the Makahoy 138 kV Station and adjust as needed.
- AEP will expand ~132' of the South East section of the Makahoy 138 kV Station yard and fence by ~40' to the South.

1.5.3 Attachment Facilities Work

- Two (2) diverse fiber-optic paths to the AD1-043 collector station are required. AEP will extend two (2) fiber-optic cables from the Makahoy 138 kV Station control house to the POI. The Interconnection Customer will be responsible for the fiber work on the IPP side of the POI.
- AEP will install 138 kV revenue metering at the Makahoy 138 kV Station.
- AEP will extend one (1) span of 138 kV transmission line for the generation lead going to the AD1-043 site. AEP will build and own the first transmission line structure outside of the Makahoy 138 kV Station fence to which the AEP and AD1-043 transmission line conductors will attach.

1.5.4 Network Upgrade Work

Due to system overloads found during the PJM studies, the following network reinforcements are required:

- None

1.6 Total Cost of Transmission Owner Facilities Included in the Facilities Study:

Attachment Facilities	\$1,012,380.98
Direct Connection Facilities	\$0.00
Non-Direct Connection Facilities	\$1,233,284.99
Network Upgrade Facilities	\$
Total Cost	\$2,245,665.97

The estimates do not include the impact that delays in obtaining ROW, permits, or other approvals may have.

1.7 Summary of Schedule Milestones for Completion of Transmission Owner Work Included in Facilities Study:

Typical Schedule for Scope Indicated (Actual schedule to be determined at PJM Project kick off meeting)

<u>Activity</u>	<u>Dates (See Notes)</u>
Engineering Start	Day 1*
Material Ordering	Starts Day 145
Construction (Grading & Below Grade)	Starts Day 350
Construction (Above Grade)	Starts Day 380
Outage Requests Made By	Day 110
Outage (Structure Foundations)**	Starts Day 390
Outage (Cut-in & Testing)**	Starts Day 425
Ready For Back Feed (Interconnected Transmission Owner In-Service Date)	Day 440

*Day 1 will be determined at the PJM kick off meeting.

**Scheduled Outages are contingent upon outage availability. Longer duration outages are not available during peak load periods.

Notes Regarding the Schedule

- All transmission outages are subject to PJM and AEP Operations outage scheduling requirements.
- Significant scope of work changes will impact the schedule.

Scope Assumptions

- Estimates provided are based on a table top process without the benefit of the results of site specific engineering studies (e.g., soil borings, environmental survey, ground grid, etc.), unless otherwise provided by the Interconnection Customer.
- The Interconnection Customer will provide any required additional easements to all facilities and structures.
- The Interconnection Customer will have their construction and required checkout completed prior to the start of the interconnection to the Makahoy 138 kV Station and any required testing outages.

- **P&C coordination with the Interconnection Customer will be needed throughout the project. IPP to install AEP-compatible line relaying protection panel at IPP station using AEP standards to ensure relaying coordination and adequate line protection. Design team to ensure firmware at IPP terminal matches the approved firmware at the AEP terminal. Failure to accept cost of matching line relay panel may change scoping.**
- **Slippage by the customer / developer in executing the ISA and ICSA agreements does not equate to a "day for day" slippage in the scheduled back feed and in service dates. Depending on the time of year, planned outages, neighboring projects and maintenance of the grid, outage availability has the potential to shift by weeks or months depending on conditions at the time of the fully executed agreement.**

2 Transmission Owner Facilities Study Results

2.1 Transmission Lines - New

- AEP will extend one (1) span of 138 kV transmission line for the generation lead going to the AD1-043 site. AEP will build and own the first transmission line dead end structure outside of the Makahoy 138 kV Station fence to which the AEP and AD1-043 transmission line conductors will attach.

2.2 Transmission Line - Upgrades

- No transmission line upgrades will be required for this project.

2.3 Station Facilities - New

- No new station facilities will be required for this project.

2.4 Station Facilities - Upgrades

- AEP will expand the existing Makahoy 138 kV Station to facilitate the connection of the generation lead going to the PJM project AD1-043 by installing one (1) additional circuit breaker(s).
- Installation of associated protection and control equipment, line risers, switches, jumpers, SCADA, and 138 kV revenue metering will be required at the Makahoy 138 kV Station. AEP reserves the right to specify the final acceptable configuration considering design practices, future expansion, and compliance requirements.
- The protective relay-settings for the remainder of the Makahoy 138 kV Station will have to be reviewed and updated (as needed) to account for the addition of the AD1-043 generation source.
- AEP will expand ~132' of the South East section of the Makahoy 138 kV Station yard and fence by ~40' to the South.

2.5 Metering & Communications

Standard 138 kV metering will be installed at the Makahoy 138 kV Station. A standard station communication scheme will be used. All metering equipment shall meet the requirements as specified by AEP in the 'AEP Metering and Telemetry Requirements for AEP Transmission Customers' document (SS-490011). Communication requirements are published in the 'AEP SCADA RTU Requirements at Transmission Interconnection Facilities' (SS-500000).

Two (2) diverse fiber-optic paths to the AD1-043 collector station are required. AEP will extend two (2) fiber-optic cables from the Makahoy 138 kV Station control house to the POI. The Interconnection Customer will be responsible for the fiber work on the IPP side of the POI.

The Generation Interconnection Agreement does not in or by itself establish a requirement for American Electric Power to provide power for consumption at the developer's facilities. A separate agreement must be reached with the local utility that provides service in the area to ensure that infrastructure is in place to meet this demand and

proper metering equipment is installed. The metering work described above and the cost estimates indicated below do not include any potential work or cost to address metering requirements of the local service provider. It is the responsibility of the developer to contact the local service provider to obtain a local service agreement. This is required prior to energization.

2.6 Environmental, Real Estate, and Permitting Issues

The Interconnection customer is expected to obtain, at its cost, all necessary permits and provisions for the IPP station connecting to the Makahoy 138 kV Station.

2.7 System Modeling and Operating Requirements

In addition to the IPP modeling requirements imposed by PJM as part of the Generation Interconnection process, the following system modeling parameters are required to be supplied by the Interconnection Customer to AEP:

- Modeling parameters are required as outlined in the 'Connection Requirements for the AEP Transmission System.' These requirements can be accessed at: <https://aep.com/requiredpostings/AEPTransmissionStudies>

2.8 Summary of Results of Study (Refer to Section 1.4)

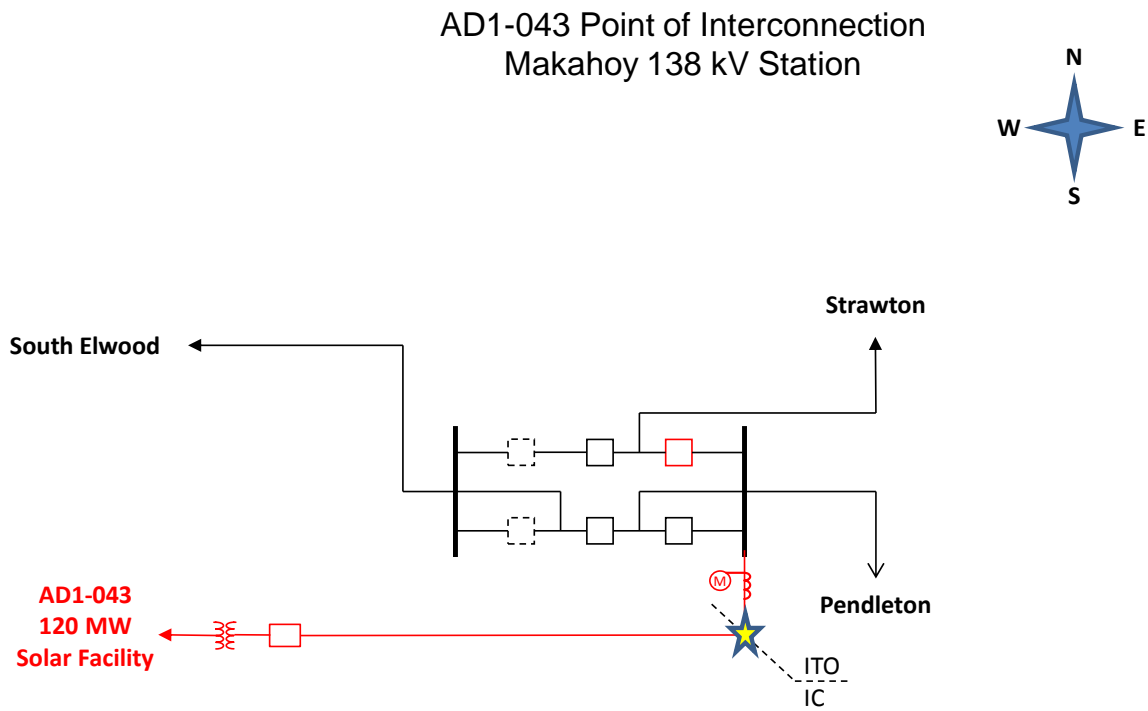
<u>Task</u>	<u>Network Upgrade Number</u>	<u>Engineering</u>	<u>Material</u>	<u>Construction</u>	<u>Other</u>	<u>TOTAL</u>
Expand the station yard and fence, Install One (1) New 138 kV Circuit Breaker, Associated Equipment, Update Protective Relay Settings at the Makahoy 138 kV Station	n8046.1	\$191,924.33	\$307,991.33	\$469,143.34	\$264,226.00	\$1,233,285.00
Install 138 kV Revenue Metering	N/A	\$29,266.00	\$145,214.00	\$85,377.00	\$22,206.00	\$282,063.00
Install One (1) Dead End Structure, One (1) Span of Conductor from the Makahoy 138 kV Station to the Point of Interconnection	N/A	\$103,707.33	\$98,539.33	\$224,777.34	\$123,177.00	\$550,201.00
Install Two (2) Fiber-Optic Paths from the Makahoy 138 kV Station to the Point of Interconnection	N/A	\$56,973.33	\$31,709.33	\$59,329.34	\$32,105.00	\$180,117.00
<u>TOTAL</u>		\$381,870.99	\$583,453.99	\$838,627.02	\$441,714.00	<u>\$2,245,666.00</u>

2.9 Information Required for Interconnection Service Agreement

<u>Description</u>	<u>DCF Facility</u>	<u>NUF Facility</u>	<u>ATF Facility</u>	<u>TOTAL</u>
<u>Direct Material</u>	\$0.00	\$307,991.34	\$275,462.66	\$583,454.00
<u>Direct Labor</u>	\$0.00	\$661,067.66	\$559,430.34	\$1,220,498.00
<u>Indirect Material</u>	\$0.00	\$83,977.67	\$48,744.46	\$132,722.13
<u>Indirect Labor</u>	\$0.00	\$180,248.33	\$128,743.54	\$308,991.87
<u>TOTAL</u>	\$0.00	\$1,233,285.00	\$1,012,381.00	<u>\$2,245,666.00</u>

Figure 1: Point of Interconnection One-Line Diagram

The Point of Interconnection is the first structure in the generation lead circuit outside of AEP's Makahoy 138 kV Station fence. The Interconnected Transmission Owner (AEP) will own the span from the Makahoy 138 kV Station to the first AEP constructed and owned dead end structure, including the jumpers. The Interconnection Customer, Invenergy Solar Development North America LLC, will own the other span connecting to the Point of Interconnection structure from the Collector Substation side, the 138 kV generator lead transmission line, and associated remaining structures back to the AD1-043 generation Collector Substation.



Legend

- Existing
- - - Future
- To be Constructed for AD1-043

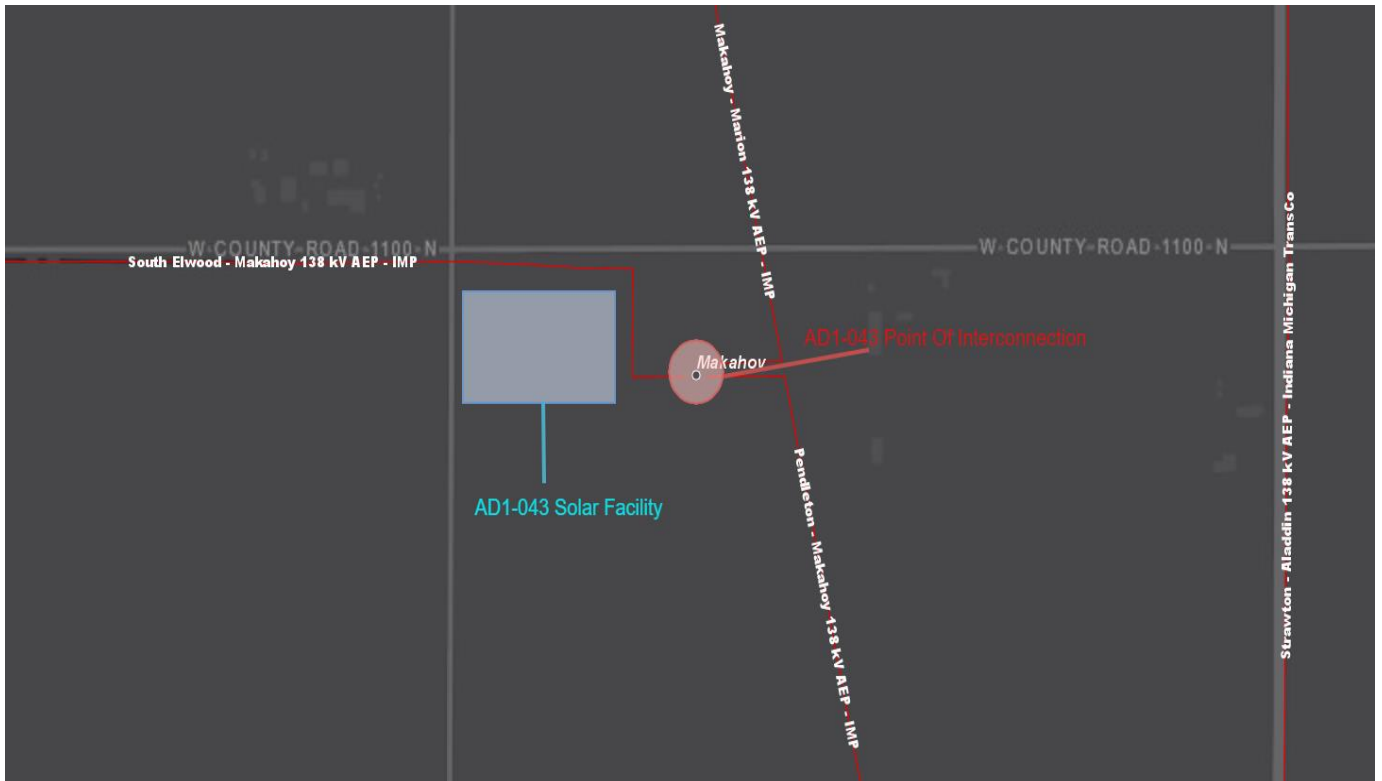
Ⓜ Revenue Metering

ITO – Interconnected Transmission Owner

IC – Interconnection Customer

★ Point Of Interconnection

Figure 2: Point of Interconnection Map



STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION BY)
LONE OAK SOLAR ENERGY LLC FOR)
CERTAIN DETERMINATIONS BY THE) CAUSE NO. 45255
COMMISSION WITH RESPECT TO ITS)
JURISDICTION OVER PETITIONER'S)
ACTIVITIES AS A GENERATOR OF)
ELECTRIC POWER)

LONE OAK SOLAR ENERGY LLC'S QUARTERLY REPORT:
SECOND QUARTER 2022

This Quarterly Report ("Report") is filed as required by the Commission's Order in this Cause issued on October 29, 2019. This Report provides the required information to the extent such information is known and available.

(1) Any changes to the information provided in the Initial Report.

The information provided in the Initial Report, as updated by subsequent Quarterly Reports, remains applicable and there are no changes to report at this time.

(2) Any reports of Interconnection System Impact Studies not previously submitted to the Commission.

A Feasibility Study prepared by PJM was attached to the testimony of Katya Samoteskul as Petitioner's Attachment KS-7. The System Impact Study was attached to Lone Oak's Fourth Quarter 2019 Report. The Facilities Study was completed in May 2022 and was attached to Lone Oak's Second Quarter 2022 report.

(3) Copy of the ISA as filed with FERC.

Lone Oak Solar Energy LLC executed the ISA and posted \$1,486,380 in cash as security on July 5, 2022. A fully executed copy of the ISA has not yet been received.

(4) Notice of the establishment of an independent financial instrument, including its form and amount.

As noted above, cash was posted as ISA security.

(5) Achievement of construction milestones described in the ISA and such events as the procurement of major equipment, the receipt of major permits material to the

construction and operation of the Facility, construction start-up, initial energization, and commercial operation.

Not applicable.

- (6) **When commercial operation is achieved, the nameplate capacity, term and identity of a purchaser for any contracts then existing for utility sales, contingency plans (if any) detailing response plans to emergency conditions as required by state or local units of government, the interconnecting transmission owner and/or PJM, and the Facility's certified (or accredited) dependable capacity rating.**

Not applicable.

Lone Oak also notes that on October 28, 2022, it filed a Complaint with the Commission pursuant to Ind. Code § 8-1-2-101 and related statutes regarding the Madison County Board of Zoning Appeals' unreasonable denial of Lone Oak's request to extend the commercial operation date of the facility from December 31, 2023 to December 31, 2025 due to circumstances beyond the utility's control. The Complaint requests, among other things, that the Commission stay the effectiveness of the three-year timeline set forth in the Commission's Final Order.

VERIFICATION

The undersigned, Hannah Pawelczyk, being first duly sworn upon his oath states that the foregoing statements are true to the best of her knowledge, information and belief.

DocuSigned by:
Hannah Pawelczyk
By: CB92D208A2BA46A...
Hannah Pawelczyk
Senior Manager, Invenergy LLC

Respectfully submitted,

A handwritten signature in blue ink that reads "Kristina Kern Wheeler". The signature is written in a cursive style and is positioned above a horizontal line.


Kristina Kern Wheeler (20957-49A)
Bose McKinney & Evans LLP
111 Monument Circle, Suite 2700
Indianapolis, Indiana 46204
317-684-5152 (Direct)
kwheeler@boselaw.com

Attorney for Petitioner,
Lone Oak Solar Energy LLC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was electronically delivered this 31st day of October, 2022, to the following:

Office of Utility Consumer Counselor
PNC Center
115 W. Washington Street, Suite 1500 South
Indianapolis, Indiana 46204
thaas@oucc.in.gov
infomgt@oucc.in.gov



Kristina Kern Wheeler
Bose McKinney & Evans LLP

4460965_1

AFFIDAVIT OF CONSENT

The undersigned, as Vice President of Lone Oak Solar Energy LLC, a Delaware limited liability company, as developer of Proposed Lone Oak Solar project ("Project") in Madison County, Indiana, hereby affirms under oath that the listing set forth as Exhibit A attached hereto of name and address of all Project property owners ("Owners") is true and accurate; and

Further, that the Leases and/or Neighbor Agreements entered into by and between Developer and Owners each contain a provision in the form attached hereto as Exhibit B which allows the Developer to submit any and all necessary zoning and permitting applications relative to the Project on behalf of the Owner.

FURTHER AFFIANT SAITH NOT

I affirm, under penalties of perjury that the foregoing representations are true to the best of my knowledge.

LONE OAK SOLAR ENERGY LLC

May 5/20/2022, 2022

DocuSigned by:
By: Michael Kaplan
Printed: Michael Kaplan
Title: Vice President

Exhibit A to the Affidavit of Consent

List of Project Property Owners, Addresses

Owner Name	Address	City	State	Zip
W.H.S. FARM, LLC	2574 W. St. Rd. 28	Alexandria	IN	46001
Cullison Farm Properties, LLC	PO Box 204	Wellton	AZ	85356
Brier Patch Farms, Inc.	5081 W State Road 28	Alexandria	IN	46001
Gary Reichart	PO Box 356	Orestes	IN	46063
Charles and Tamara Davis	12064 N 450 W	Alexandria	IN	46001
Dianna E. Etchison Dan Etchison Denise Etchison	4308 W 850 N	Frankton	IN	46044
Barber Family Farms, Inc.	6746 E 300N	Elwood	IN	46036
Barber Livestock Farms, Inc.	6746 E 300 N	Elwood	IN	46036
Heiser Family Share Trust dated January 19, 2017	25440 SR 213	Cicero	IN	46034
John W Richwine Farms Inc. Benjamin Lloyd Richwine Farms, Inc.	8166 W 900 N	Elwood	IN	46036
Cindy Pruitt	10194 N 550 W	Frankton	IN	46044
Shirley Reason	10018 N 550 W	Frankton		46044
Leota Brown Patricia Shrock	11644 N 450 W	Alexandria	IN	46001
Tony Barber	2119 South A Street	Elwood	IN	46036
Judy Bailey Don & Judy Bailey Farms, Inc.	9052 N 500 W	Frankton	IN	46044
Gary Reichart	PO Box 356	Orestes	IN	46063
Myron Wittkamper	12706 N 400 W	Alexandria	IN	46001
Ray & Tamara Utterback	4545 W 1000 N	Alexandria	IN	46001
Virgil & Kaye Canfield	7445 N 600 W	Frankton	IN	46044
Justin D. Fisher	4347 W 1100	Alexandria	IN	46001
Mitchell L. Cain Robert L. Cain Linda L. Cain	11233 N 450 W	Alexandria	IN	46001

Exhibit B to the Affidavit of Consent

Lease Provision

Owner shall assist and fully cooperate with Grantee, at no out-of-pocket expense to Owner, in complying with or obtaining any land use permits and approvals, building permits, environmental impact reviews, tax abatements or any other permits and approvals reasonably necessary for the financing, construction, installation, monitoring, repair, replacement relocation, maintenance, operation or removal of Solar Facilities, including, but not limited to, execution of applications and documents reasonably necessary for such approvals and permits, and participating in any appeals or regulatory proceedings respecting the Solar Facilities. To the extent permitted by law, Owner hereby waives enforcement of any applicable setback requirements respecting the Solar Facilities to be placed on or near the Property that are reasonably necessary, in Grantee's sole and absolute discretion, to carry out Grantee's power-generating activities on or near the Premises.

Neighbor Agreement Provision

Owner hereby waives enforcement of Madison County setback requirements for non-participating landowners and permits Grantee to site Solar Facilities up to twenty-five (25) feet from any side yard of Owner's Property, up to thirty (30) feet from the rear yard of Owner's Property, and up to the following distances from the front yard of Owner's Property: a) one hundred fifty (150) feet from an arterial road, b) one hundred (100) feet from a collector road, or thirty-five (35) feet from a local road, all as defined by Madison County.

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE COMPLAINT OF LONE)
OAK SOLAR ENERGY LLC AGAINST THE)
BOARD OF COMMISSIONERS AND BOARD OF)
ZONING APPEALS OF MADISON COUNTY,)
INDIANA FOR A DETERMINATION UNDER)
INDIANA CODE §§ 8-1-2-54 THROUGH -67,)
8-1-2-101, 8-1-2-115, AND RELATED STATUTES)
REGARDING THE UNREASONABLENESS OF THE)
DECISION OF THE BOARD OF ZONING APPEALS)
UNDER THE COUNTY’S SOLAR ENERGY)
ZONING ORDINANCE)
)
RESPONDENTS: MADISON COUNTY BOARD OF)
ZONING APPEALS AND MADISON COUNTY)
BOARD OF COMMISSIONERS)


CAUSE NO. 45793

**SUBMISSION OF COMPLAINANT’S PREFILED VERIFIED DIRECT TESTIMONY
OF HANNAH PAWELCZYK**

Lone Oak Solar Energy LLC (“Lone Oak” or “Complainant”), by counsel, hereby submits
the Prefiled Verified Direct Testimony of Hannah Pawelczyk.

Dated this 9th day of December, 2022.

Respectfully submitted,



Kristina Kern Wheeler, #20947-49A
Nikki Gray Shoultz, #16509-41
Bose McKinney & Evans LLP

PREFILED VERIFIED DIRECT TESTIMONY OF HANNAH PAWELCZYK

ON BEHALF OF LONE OAK SOLAR LLC

Q1. PLEASE STATE YOUR NAME AND ON WHOSE BEHALF YOU ARE TESTIFYING.

A. My name is Hannah Pawelczyk, and I am testifying on behalf of Lone Oak Solar Energy LLC (“Lone Oak” or “Project”). My business address is One South Wacker Drive, Suite 1800, Chicago, Illinois 60606.

Q2. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Invenergy LLC (“Invenergy”) as Senior Manager, Renewable Development. I have been delegated responsibility for the development of the Lone Oak Project.

Q3. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I have a Bachelor of Science in Mathematics from the University of Notre Dame and a Masters of Business Administration with concentrations in Finance and Enterprise Risk Management from The Johns Hopkins University. I also attended the Intensive Chinese Language Program at Peking University. At Notre Dame, I received the G.E. Prize for Excellence in Mathematics in May 2014. In May 2018 at Johns Hopkins, I received the J. Stegman CPA Memorial Award for the highest GPA in the full-time MBA Program. After gaining experience in the technology and utility industries, I started working at Invenergy in July 2018 as an Associate, Renewable Development, then was promoted to Manager, Renewable Development in September 2020, and was promoted again to my current role as Senior Manager in March 2022.

1 **Q4. HAVE YOU PREVIOUSLY TESTIFIED BEFORE GOVERNMENT**
2 **BODIES OR AGENCIES?**

3 A. Yes, I submitted testimony in support of petitions for a declination of the Commission's
4 jurisdiction on behalf of Fairbanks Solar Energy Center LLC in Cause No. 45254; Trade
5 Post Solar LLC in Cause No. 45539; Foundry Works Solar Energy LLC in Cause No.
6 45639; and Crosstrack Solar Energy LLC in Cause No. 45652. Each of these solar
7 companies are affiliates of Invenergy. I have also testified in front of county boards in Iowa
8 regarding county approvals.

9 **Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. My testimony supports Lone Oak's request for the Commission to find Madison County
11 Solar Energy Ordinance No. 2017-BC-0-01 passed by the Madison County Board of
12 Commissioners ("Board") (the "Ordinance") and the decisions thereunder by the Madison
13 County Board of Zoning Appeals ("BZA") are unreasonable and void pursuant to Ind.
14 Code § 8-1-2-101 and related statutes. In particular, I discuss Lone Oak's request for an
15 extension of the BZA's condition that the Project's commercial operation deadline be
16 extended from December 31, 2023 to December 31, 2025. I have included the transcript
17 from the BZA's June 28, 2022 hearing (the "Modification Hearing") as Attachment HP-1.¹

18 **Q6. WERE YOU PRESENT AT THE MODIFICATION HEARING?**

19 A. Yes, I was present and provided sworn testimony before the BZA on behalf of Lone Oak.

20 **Q7. WHAT WAS THE BZA STAFF'S POSITION ON THE REQUEST TO**
21 **EXTEND THE COMMERCIAL OPERATIONS DEADLINE?**

¹ References to the transcript from the Modification Hearing are abbreviated throughout as "Tr.".

1 A. Rachael Christenson spoke for the BZA staff at the hearing. She testified that Lone Oak's
2 petition "...isn't going back to rehash the other conditions; this is solely looking at
3 Condition Number 19." Tr. 12, ln. 14-17. Ms. Christenson also stated her staff
4 recommendation on Lone Oak's petition:

5 Because of the litigation that was pursuing [sic] after the approval was
6 made, my staff recommendation is to approve the project as presented. I am
7 not going back and speaking to anything that was decided previously with
8 the other conditions. I'm solely looking at Condition Number 19. However,
9 it is up to the Board now to discuss, and ask additional questions, and make
10 a motion.

11
12 Tr. 72, ln. 8-17.

13 **Q8. WHAT EVIDENCE DID LONE OAK PRESENT AT THE MODIFICATION**
14 **HEARING TO SUPPORT ITS REQUEST TO EXTEND THE COMMERCIAL**
15 **OPERATIONS DEADLINE?**

16 A. At the Modification Hearing, Lone Oak explained that the Project itself had not changed,
17 but the litigation regarding the Project in the two years after its initial approval in 2019
18 prevented it from obtaining financing. In short, investors were unwilling to provide
19 financing for a project until the litigation was resolved. In addition to the financing issues,
20 Lone Oak also testified and presented evidence on the supply chain problems caused by
21 the global pandemic that have affected construction. Tr. 31-37. In particular, I testified
22 that while the pandemic has delayed key supplies for most every industry, including the
23 solar industry,

24 ...the key part is with these appeals, we're not able to move forward in the
25 final stages of development for this project. You can't get offtake and you
26 can't get construction financings with appeals pending. So, that's something
27 we'd be looking to work towards now but just haven't been able to for the
28 past two years. We've certainly been trying everything we can to move the
29 project forward, whether that's title curatives, other final studies. But those
30 key items of getting the power contracted and getting construction

1 financings take months, if not a year or more of work, and it's just not
2 possible when appeals are pending.
3

4 Tr. 39. Potential investors and offtakers were scared off by the litigation, and were not
5 interested in risking their capital and business plans on the outcome in the Indiana courts,
6 which they knew would take years.

7 **Q9. ARE YOU AWARE OF ANY LEGITIMATE LOCAL INTEREST IN ENSURING**
8 **THE COMMERCIAL OPERATION DATE OCCURS BEFORE DECEMBER 31,**
9 **2023?**

10 A. No.

11 **Q10. WAS THERE ANY BZA COMMENTARY OR PUBLIC HEARING EVIDENCE**
12 **INDICATING A LEGITIMATE LOCAL PUBLIC INTEREST IN THE**
13 **COMMERCIAL OPERATION DATE OF THE PROJECT?**

14 A. No. All of the commentary from the BZA members and the public related to aspects of the
15 solar project other than the commercial operation date. As the transcript demonstrates, at
16 no time did any individual suggest that extension of the commercial operation date would
17 threaten a legitimate public interest, improperly infringe on land use, or create a danger to
18 public health or safety. Rather, the BZA's denial was based on disdain by selected
19 individuals for solar projects in general.

20 **Q11. WHAT KIND OF QUESTIONS DID YOU RECEIVE FROM THE BZA**
21 **MEMBERS?**

22 A. BZA Chairman John Simmermon expressed concerns that the BZA had not been provided
23 copies of the landowner leases, and asked what impact the Project delay had on those
24 leases. Tr. 37. I responded that we have adequate time under the lease contracts, including
25 up to two years of development term left on our oldest leases, as well as options for

1 extensions. Tr. 38. In other words, the landowner leases will remain in effect “as is” if the
2 extension of the commercial operation date is granted. Mr. Simmermon then asked if Lone
3 Oak intended to increase lease payments due to recent increases in land values. *Id.* I
4 responded that our leases already included inflationary escalators in landowner payments,
5 but that the terms had not substantively changed since the contracts were signed. *Id.*

6 **Q12. WHAT KIND OF STATEMENTS DID REMONSTRATORS MAKE?**

7 A. Remonstrators alleged, despite sworn testimony and other evidence to the contrary, that
8 Lone Oak was lying about the reasons for the delay. One citizen argued that Lone Oak’s
9 claims were pretext for its real intent to influence future elections and then return to the
10 County to seek approval of a previously-denied tax abatement. Tr. 42-43. Remonstrators
11 also claimed that Invenergy was lying when it stated that it could not move forward with
12 the project when the appeal of the initial BZA decision was pending. Tr. 65.

13 **Q13. WHAT OTHER COMMENTS DID THE REMONSTRATORS MAKE TO**
14 **THE BZA?**

15 A. The Remonstrators made several claims without supporting evidence, including:
16 • The Project would cause their homes to be valueless property that should be
17 “bulldozed” and that this was an unconstitutional taking (Tr. 43-44);
18 • Threats of additional lawsuits against Lone Oak if the extension was approved (*Id.*);
19 • Objections to taking prime farmland “out of commission” for solar development (Tr.
20 47, 69);
21 • Claims that Lone Oak’s leases were not binding and that the landowners who have
22 leases did not want the Project, despite those landowners not actually being present at
23 the hearing to testify themselves (Tr. 52);

- 1 • That “free solar energy has no scientific merit” (Tr. 55-56);
- 2 • That President Biden’s energy policy is too aggressive and renewable development is
- 3 happening at the expense of petroleum production, is causing inflation, and “no country
- 4 in the world has been able to industrialize using renewable energy.” (Tr. 60-61);
- 5 • That solar energy is “dirty electricity,” turns the farmland toxic, contaminates the water
- 6 table, and hurts wildlife (Tr. 62-63, 68);
- 7 • That there are only three prime hours a day to collect solar electricity (Tr. 63);
- 8 • That “lives would be ruined” by the solar project (Tr. 66);
- 9 • That solar panels are made in China and the USA does not need them (Tr. 67); and
- 10 • Objections that the energy from the Project will not be used in Madison County and
- 11 goes out of state (Tr. 69).

12 **Q14. WHAT WAS LONE OAK’S TESTIMONY IN RESPONSE TO THESE CLAIMS?**

13 A. Lone Oak explained that the BZA has an obligation as a quasi-judicial body to review our
14 application without bias. We noted that any activities on the site were related to site testing
15 and not construction, and that Invenergy was telling the truth under oath about the
16 difficulties the litigation caused in obtaining financing and a project offtaker. We noted
17 that Mr. Kaplan’s affidavit (included in his testimony in this Cause as Attachment MRK-
18 3) indicated that Lone Oak had the contractual authority to represent the landowners at the
19 Modification Hearing. Lone Oak also explained that the purpose of the Modification
20 Hearing was not to re-litigate all of the issues in the original BZA decision; that the BZA’s
21 2019 approval of the Project had been upheld by the courts as being supported by
22 substantial evidence (evidence which has not changed or been meaningfully rebutted

1 since); and that the Court of Appeals specifically found Lone Oak was in compliance with
2 the county's ordinance and comprehensive plan. Tr. 70-74. In particular, I testified that:

3 In 2019, the tax abatement was necessary, as quoted, given the market at
4 the time. And then denial of the tax abatement did cause a slight delay at
5 that time. But since 2020, we've only seen costs continue to go down.
6 Solar's one of the lowest cost forms of energy now. And with costs going
7 down and demand, especially from Indiana utilities, continuing to increase,
8 we do – will not and do not plan to pursue a tax abatement for Lone Oak
9 Solar. It's not necessary for the project anymore, given the current market.
10 And as I mentioned earlier, we have it contained with due diligence and title
11 curative tests, but with appeals pending, getting construction financing, and
12 getting offtake for the project is not possible. *Id.*

13
14 **Q15. WHAT REQUIREMENTS APPLY TO AN INDIANA BZA RELATED TO**
15 **CONFLICTS OF INTEREST?**

16 A. Ind. Code § 36-7-4-909(a) states that a board of zoning appeals member may not participate
17 in a hearing or decision of that board concerning a zoning matter in which he/she has a
18 conflict of interest, which includes the following: (1) the member is biased or prejudiced
19 or otherwise unable to be impartial; or (2) the member has a direct or indirect financial
20 interest in the outcome of the decision.

21 **Q16. IN YOUR OPINION, WAS THE BZA UNBIASED?**

22 A. With all due respect, I believe the BZA members showed significant bias against solar
23 development projects. Several comments of the BZA led us to believe that they had spoken
24 to interested parties in violation of conflict of interest laws, and were against solar projects
25 being developed in the county in general, regardless of this Project's circumstances and the
26 fact that the county's zoning ordinance allows solar as a special use. In fact, BZA Vice
27 Chairman Curt Stephenson moved that Lone Oak's petition be denied, stating:

28 As I stated back in 2019, I still – I felt then, as I still do today, that there will
29 be impact to the property owners. And this project has the labor with me
30 with respect to the impact it will have. And so, I am opposed to this project

1 then, as I am still today. And the extension that they're being asked for, I
2 cannot agree with it then and I cannot agree with it today. So, I'm sorry. So,
3 my recommendation to the Board would be not to approve this at all.

4 Tr. 75-76.

5 **Q17. WHAT EVIDENCE WAS PRESENTED TO SUPPORT THE BZA'S DENIAL?**


6 A. There was no evidence presented to support the BZA's denial other than the
7 Remonstrators' and BZA members' personal opinions as I described them above, and are
8 reflected in the Modification Hearing transcript. This opposing "evidence" was irrelevant
9 to the proposed modification at issue. To date, no findings of fact have been signed by the
10 BZA to support its denial, which are required under Ind. Code § 36-7-4-915. *See also,*
11 *Carlton v. Bd. of Zoning Appeals*, 245 N.E.2d 337 (Ind. 1968).

12 **Q18. DOES THIS CONCLUDE YOUR TESTIMONY?**

13 A. Yes.

VERIFICATION

I affirm under the penalties of perjury that the foregoing Prefiled Verified Direct Testimony is true to the best of my knowledge, information and belief as of the date here filed.

DocuSigned by:

CB92D208A2BA46A...
Hannah Pawelczyk


CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was delivered electronically or by certified U.S. mail this 9th day of December, 2022 to the following:

Jason Haas
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Kristina Kern Wheeler
BOSE MCKINNEY & EVANS LLP

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Madison County, Indiana
Board of Zoning Appeals
June 28, 2022

1 CHAIRMAN JOHN SIMMERMON: We'll start
2 the June 28th BZA meeting to order. We'll start
3 out with a word of prayer. Let us pray.

4 Dear Lord, we just thank you for this
5 day, or we thank you for the summer season and
6 the growth that we see. And, Lord, we know
7 that's all part of your gift to us. Lord, we
8 thank you for the many blessings that we have; we
9 thank you for this freedom that we have. We
10 thank you that we're able to celebrate the
11 freedom on July 4th. Lord, and we just -- we
12 take all that for granted throughout this country
13 and, Lord, we just -- we just ask that you will
14 constantly remind us of all of the great
15 blessings and gifts that we have.

16 Lord, as we continue on today, we lift
17 up the military and the policemen and everybody
18 that protects us. Lord, we just ask that --
19 especially over the July 4th weekend -- that you
20 just protect them. Protect them as they protect
21 us, Lord.

22 Lord, as we continue on today, we just
23 pray that you will guide us and help us to make
24 good decisions for the county. This we ask in
25 your name. Amen.

1 We'll stand for the Pledge of
2 Allegiance.

3 (Pledge of Allegiance)

4 CHAIRMAN JOHN SIMMERMON: Stacey will
5 take roll call?

6 OFFICE COORDINATOR STACEY HINTON:

7 Absolutely. Lisa Hobbs? Cory Bohlander?

8 BOARD MEMBER CORY BOHLANDER: Here.

9 OFFICE COORDINATOR STACEY HINTON:
10 Jerry Stamm?

11 BOARD MEMBER JERRY STAMM: Here.

12 OFFICE COORDINATOR STACEY HINTON: Curt
13 Stephenson?

14 VICE CHAIRMAN CURT STEPHENSON: Here.

15 OFFICE COORDINATOR STACEY HINTON: And
16 John Simmermon?

17 CHAIRMAN JOHN SIMMERMON: Here.

18 OFFICE COORDINATOR STACEY HINTON:

19 Thank you.

20 CHAIRMAN JOHN SIMMERMON: Okay, so
21 we're ready for Petition V-012.

22 RACHAEL CHRISTENSON: Are we doing
23 meeting minutes?

24 CHAIRMAN JOHN SIMMERMON? Oh, we've got
25 to do the minutes. Okay, let's go ahead and do

1 the minutes now.

2 RACHAEL CHRISTENSON: You're excited.
3 You're ready to go.

4 CHAIRMAN JOHN SIMMERMON: We have the
5 April minutes -- actually, we have two. We
6 weren't able to vote on the April minutes last
7 time because we didn't have enough people. If
8 you've had a chance to look through the minutes,
9 I'd like to have a motion to approve.

10 BOARD MEMBER JERRY STAMM: I'll make a
11 motion to accept the April 26th BZA meeting.

12 CHAIRMAN JOHN SIMMERMON: Second?

13 MAN 1: Second.

14 CHAIRMAN JOHN SIMMERMON: First,
15 second. All in favor, say aye.

16 GROUP: Aye.

17 CHAIRMAN JOHN SIMMERMON: Motion
18 approved. Now we have the May minutes, May 24th.

19 BOARD MEMBER JERRY STAMM: I make a
20 motion to accept the minutes from the BZA meeting
21 for May 24th.

22 CHAIRMAN JOHN SIMMERMON: Second?

23 MAN 1: Second.

24 CHAIRMAN JOHN SIMMERMON: First and
25 second. All in favor, say aye.

1 GROUP: Aye.

2 CHAIRMAN JOHN SIMMERMON: So, both
3 minutes have been approved.

4 RACHAEL CHRISTENSON: All right. Now,
5 we're ready. Okay, today, I want to kind of
6 reiterate that the way that we are going to do
7 petitions is that petitioners will have 25
8 minutes to speak. After I give my staff report,
9 petitioners will have 25 minutes to speak. The
10 public will have 30 minutes to speak. And then
11 after the public speaks, the petitioner will have
12 an additional five minutes to address anything
13 that the public brought to the Board's attention.
14 So, I will be keeping track of the time to make
15 sure that we stay on schedule, and we stay within
16 our guidelines.

17 Our first petition on new business is
18 2022-V-012. The address is 7532 Sprague Street
19 in Anderson. This is in Adams Township. The
20 petitioners are Fred and Mary Spitz. They saw us
21 a couple months ago for that project that was
22 related to this variance. You guys had granted
23 them a variance on setbacks. Their zoning is
24 Conservation Residential. Their property, as you
25 remember, is approximately 10,000 square feet.

1 At our last meeting, we had talked
2 about how they had -- they were already exceeding
3 their maximum lot coverage. The Spitzes are
4 wanting to build a barn or a garage on their
5 property for storage. Last month, like I said,
6 they were approved for a variance on the
7 setbacks. This one, they're asking for a
8 variance on lot coverage.

9 So, again, the lot is about 10,000
10 square feet. When we did measurements off of the
11 existing GIS, we found that their existing lot
12 coverage is about 32 percent, so they were
13 already exceeding what the allowed lot coverage
14 was, which is 30 percent. With the addition of a
15 30 by 20 garage, this would increase the lot
16 coverage to approximately 38 percent.

17 Last meeting, the Board encouraged them
18 to come back and file this variance. Even though
19 the Board had encouraged them this, from my staff
20 perspective, this could cause issues down the
21 road with drainage. All properties are supposed
22 to keep drainage on their own site and not push
23 drainage off onto other properties. So,
24 therefore, my staff recommendation on this would
25 be to deny it. However, the Board, of course,

1 can make whatever decision that you guys would
2 like.

3 Unless you guys want me to go over the
4 details that we went over a couple months ago, we
5 certainly can do that, but if you guys --

6 CHAIRMAN JOHN SIMMERMON: You might
7 briefly do that, just to get everybody back on
8 track.

9 RACHAEL CHRISTENSON: Sure. Okay, so
10 if you were looking at their meeting packet, you
11 can see that there is -- the petitioner's
12 property is highlighted in the blue, with the
13 blue outline. The new structure that is being
14 proposed would be on the south side of the
15 property, the southeast side of the property.
16 So, they would be doing a driveway extension to
17 where the new structure would be located.

18 CHAIRMAN JOHN SIMMERMON: Off of the
19 original cut?

20 RACHAEL CHRISTENSON: Off of the
21 original cut. There would not be a new cut. You
22 can see that there's a surveyor's report that was
23 added with the meeting packet, and this is
24 showing where the proposed garage would be
25 located. Can you guys see that? Okay.

1 There's photos that have been added to
2 the meeting packet, so you can see what the
3 property looks like. It's an existing one-story
4 residential structure with an attached garage.

5 When we talk about impervious surface,
6 we are talking about anything on the site that
7 does not allow water to penetrate into the
8 ground. So, you know, the house counts as
9 impervious surface, a driveway counts as
10 impervious surface. In my calculations, I didn't
11 include what appears to be a deck on the back of
12 the structure because likely this is allowing
13 water to go through the decking -- you know, the
14 cracks in the decking, so --

15 CHAIRMAN JOHN SIMMERMON: Is this a
16 gravel driveway? I can't remember.

17 RACHAEL CHRISTENSON: Concrete. The
18 existing one is a concrete driveway. Are you
19 guys going to put a concrete driveway back to
20 the --

21 FRED SPITZ: We were planning to,
22 eventually.

23 RACHAEL CHRISTENSON: Okay. So, I did
24 not include a driveway extension in with that lot
25 coverage. So, when we look at driveways, and

1 parking lots and things like that, we consider
2 anything that is --

3 CHAIRMAN JOHN SIMMERMON: Yeah.

4 RACHAEL CHRISTENSON: You know, if it's
5 a crushed stone surface, we still consider that
6 an impermeable surface. So, I guess keep that in
7 mind as you guys are making that decision -- this
8 decision too.

9 Just to go over the calculations one
10 more time, the existing lot coverage in
11 Conservation Residential is 30 percent. The
12 petitioner is currently, without this addition,
13 at 32 percent. And the addition of just the
14 garage is going to increase the lot coverage to
15 38 percent. So, knowing that there's going to be
16 a driveway extension to that lot coverage will
17 likely increase a little bit. All right. Do you
18 guys have any questions for me? If not, I will
19 pass it over to the petitioner.

20 CHAIRMAN JOHN SIMMERMON: Okay, thank
21 you.

22 FRED SPITZ: Good morning, gentlemen.

23 CHAIRMAN JOHN SIMMERMON: Good morning.
24 One question I have for you is the --

25 VICE CHAIRMAN CURT STEPHENSON: Do you

1 need him to tell us who he is?

2 CHAIRMAN JOHN SIMMERMON: One question
3 I have for you -- yeah. You want to go ahead and
4 state your name and --

5 FRED SPITZ: My name is Fred Spitz. I
6 live at 7532 Sprague Street, Anderson, Indiana.

7 CHAIRMAN JOHN SIMMERMON: The
8 rainwater, which way does it flow now?

9 FRED SPITZ: It's going to flow towards
10 the north. Like I'd mentioned before, where my
11 home is, one house away we have a county ditch
12 that you guys maintain. I don't know if it's in
13 them pictures or not but --

14 CHAIRMAN JOHN SIMMERMON: Rachael, he
15 was already at 30 -- you said 32 percent anyway
16 before the garage.

17 RACHAEL CHRISTENSON: Yeah.

18 CHAIRMAN JOHN SIMMERMON: So, he's
19 already over before he starts.

20 RACHAEL CHRISTENSON: Yes.

21 CHAIRMAN JOHN SIMMERMON: Does anybody
22 else have more questions for him?

23 VICE CHAIRMAN CURT STEPHENSON: I guess
24 we're just trying to figure out where the water's
25 going to -- how this is going to affect -- this

1 garage, how is that going to affect the water
2 flow?

3 FRED SPITZ: Well, all the gutters are
4 going to go towards that swell. Like I say, my
5 house is the highest one and we've never had any
6 water issues there.

7 CHAIRMAN JOHN SIMMERMON: Well, I guess
8 I'm more concerned about off of yours --

9 FRED SPITZ: Putting it on to some --
10 yeah.

11 CHAIRMAN JOHN SIMMERMON: I'm concerned
12 about where the water is going to affect the
13 neighbors.

14 BOARD MEMBER CORY BOHLANDER: So, it's
15 to the north. Is that on the other side of the
16 road?

17 FRED SPITZ: No.

18 BOARD MEMBER CORY BOHLANDER: Or is
19 that back here?

20 FRED SPITZ: Right, that swell's back
21 here.

22 CORY BOHLANDER: Okay.

23 FRED SPITZ: That swell goes all the
24 way back there and picks up houses on New
25 Columbus Road and a few houses past us on 500.

1 CORY BOHLANDER: So, your current
2 gutters tapped into that drain already?

3 FRED SPITZ: Most all the water goes
4 that way. Everybody's water does.

5 CHAIRMAN JOHN SIMMERMON: And then from
6 the swell, where does it go? Do you know that?

7 FRED SPITZ: That small waterway that
8 goes to Fall Creek, if you go down 500 before you
9 get to New Columbus, that swell's all connected
10 into there and that all goes down to the creek
11 past the paintball place and all that.

12 CHAIRMAN JOHN SIMMERMON: Now, it
13 doesn't sound like you'd have much water going on
14 to the neighbors, though.

15 FRED SPITZ: Yeah, I don't think it
16 would.

17 CHAIRMAN JOHN SIMMERMON: Does anybody
18 else have any comments for him, questions? Okay,
19 thank you. Is there anybody else here that would
20 like to speak on this? A neighbor or anybody?

21 FRED SPITZ: Thank you for your time.

22 RACHAEL CHRISTENSON: Okay. Well, we
23 are -- this is a variance, of course, so factors
24 to consider when granting a variance, the
25 approval will not be injurious to the public

1 health, safety, morals, and general welfare of
2 the community; the use and value of the adjacent
3 -- of the area adjacent to the property included
4 in the variants will not be affected in a
5 substantially adverse manner; and the strict
6 applications of the terms of the Zoning Ordinance
7 will result in practical difficulties and the use
8 of the property. The situation shall not be
9 self-imposed nor be based on a perceived
10 reduction of or restriction on economic gain.

11 And those items all come from Indiana
12 Code as things that you should be considering
13 when you make your decision today.

14 The findings of facts that I included
15 in the meeting packet are the ones from my
16 perspective for a denial. So, if you guys are
17 looking to approve, we'll need to talk about the
18 findings of facts to make sure that they support
19 your decision.

20 CHAIRMAN JOHN SIMMERMON: Well, in this
21 situation here, I mean, yeah, your findings of
22 facts would vary a little bit just because of the
23 location of his house, the neighbors, and then
24 the swell to get rid of the existing rainwater.
25 That would be something to consider for the

1 approval. The main denial would be because --
2 just because that's what our code states, is 30
3 percent.

4 Anybody like to make any more comments
5 on this or entertain a motion?

6 VICE CHAIRMAN CURT STEPHENSON: I'll
7 make a motion that we deny the request based upon
8 the findings of fact. I do believe that that
9 area -- I'm somewhat familiar with -- just
10 (indiscernible) of water. It is flat out there.
11 I would be concerned if I were a neighbor, the
12 water-shedding of that property would impact
13 others.

14 So, I think that in Rachael's findings
15 of fact, one, it would be -- the lot coverage
16 does exceed the impervious surface area; it'd
17 only be increasing that, causing more problems
18 for runoff water. So, thus, I think the work
19 that she has done should validate that it should
20 be denied.

21 BOARD MEMBER JERRY STAMM: Second.

22 CHAIRMAN JOHN SIMMERMON: It's been
23 first and seconded. Roll call vote?

24 OFFICE COORDINATOR STACEY HINTON: Yes.
25 Cory Bohlander?

1 BOARD MEMBER CORY BOHLANDER: Yes.

2 OFFICE COORDINATOR STACEY HINTON:

3 Jerry Stamm?

4 BOARD MEMBER JERRY STAMM: Yes.

5 OFFICE COORDINATOR STACEY HINTON: Curt

6 Stephenson?

7 VICE CHAIRMAN CURT STEPHENSON: Yes.

8 OFFICE COORDINATOR STACEY HINTON: And

9 John Simmermon?

10 CHAIRMAN JOHN SIMMERMON: Yes. Are you

11 going to talk about 13?

12 RACHAEL CHRISTENSON: Yes. The next
13 one on the agenda is 2022-V-013. This petitioner
14 is Terry Delong, and he has actually requested a
15 continuance on the project. When I was reviewing
16 his application, there are a few other things
17 that are -- we need to work through first. And
18 he thought it would be best if we just waited
19 until the July meeting, if the Board is okay with
20 that. July 26th, 2022.

21 CHAIRMAN JOHN SIMMERMON: All right,
22 we'll accept that.

23 RACHAEL CHRISTENSON: All right, thank
24 you. Moving on, our next petition is 2022-SU-
25 009. This is a special use application that was

1 submitted by Kaye Lorenzoni. The location is
2 2639 North 300 East in Anderson. This is in
3 Richland Township. The request is a special use
4 to allow a home occupation in the Conservation
5 Residential Zoning District.

6 In our Madison County Land Use &
7 Development Code, we have a couple of different
8 categories for home occupations. The type that
9 she is applying for is a Type 2 home occupation,
10 and this is for a pet grooming business to be out
11 of her garage.

12 In the gray box at the top of your
13 staff report, you can see that special uses may
14 be approved by the BZA only upon determination
15 that the petition meets all of the legal required
16 criteria. And there's four legal criteria that
17 are, I believe, outlined by Indiana Code on
18 things that you should be considering.

19 Our Land Use & Development Code also
20 gives 11 additional items to be considering with
21 a Special Use application, which I've got listed
22 on there for you as well. And I'll walk through
23 those and kind of give you want my perspective is
24 on each of them.

25 Mrs. Lorenzoni has submitted a business

1 plan, which is a very thorough and well thought
2 out business plan. We, as staff, always
3 appreciate when a business plan is submitted
4 because it really outlines exactly what the
5 petitioner will be doing. So, that has been
6 included in your meeting materials.

7 For the criteria for Type 2 home
8 occupation standards, I'm going to go through the
9 list of 11 items and let you know how I interpret
10 what was going on and what was submitted. So,
11 the first one is that the home occupation must
12 not involve retail sales or manufacturing
13 operations but may include professional and
14 personal services or auto, furniture, and
15 appliance repair. With this being a pet grooming
16 service, I'm interpreting that is a personal
17 service, so that meets that checkbox.

18 The home occupation must not involve
19 the employment of any more than one person who
20 does not reside at the location of the home
21 occupation. And the petitioner has committed to
22 the standard, as illustrated in her business plan
23 that she submitted. Kaye is going to be -- she's
24 the owner and the operator of the business, which
25 leads me into the next one. At least one member

1 residing on the premises must be the primary
2 operator of the business, which is Kaye.

3 The home occupation must not require
4 any additional storage or display of equipment or
5 materials, including vehicles, and that includes
6 operable or inoperable vehicles, equipment or
7 appliances being serviced by the home occupation.
8 And, as outlined in her business plan, this home
9 occupation does not require exterior storage or
10 display of equipment on materials.

11 No more than 40 percent of the total
12 floor area shall be used for the home occupation,
13 which again, this will be out of her garage, and
14 that's not more than 40 percent of the total
15 floor area of her primary structure. The home's
16 occupation shall not require any exterior
17 structural or aesthetic alterations, which it
18 does not. Again, she's just doing it out of her
19 garage. She's not applied for any other
20 modifications to be made to the residence. So,
21 if she leaves, the home will still be a
22 residence.

23 The home occupation must not require an
24 identification sign exceeding four square feet
25 attached to the primary structure. And she has

1 not stated that a business plan is -- or she has
2 not stated that signage is needed within her
3 business plan. However, I would encourage the
4 petitioner that if she does -- if she would like
5 to have business signage at some point, that
6 she'll be working with the Planning Department to
7 get a permit for it, and will make sure that it's
8 following the guidelines.

9 The home occupation must not require
10 increasing or enhancing the size, capacity, or
11 flow of any utilities. And it does not. The
12 home occupation must not require that more than
13 additional -- more than two additional parking
14 spaces on the lot, and no additional parking
15 spaces are needed. The petitioner's driveway is
16 going to be used for clients dropping off and
17 picking up animals to be groomed.

18 The last one is that the home
19 occupation must not require the use of commercial
20 vehicles for pickup and deliveries other than the
21 U.S. Postal Service, UPS, or other express
22 couriers. And there's not any large deliveries
23 that are needing to be made that would go beyond
24 the ones that are allowed by ordinance.

25 Let's see. It's really pretty basic

1 and she's really following all of those
2 guidelines that we lay out in the ordinance. So,
3 my staff recommendation on this one is to approve
4 with conditions, which -- my only condition is
5 that she follows the business plan that had been
6 submitted with her application.

7 Do you guys have any questions for me
8 at this point? No? All right. Well, we will
9 let the petitioner come up and she can address
10 any questions that you may have.

11 Just make sure you sign in when you get
12 up there.

13 KAYE LORENZONI: Oh, okay. I don't
14 know if you want to sign it too. Good morning.

15 CHAIRMAN JOHN SIMMERMON: Good morning.

16 VICE CHAIRMAN CURT STEPHENSON: Good
17 morning.

18 KAYE LORENZONI: And this is my
19 husband, Robert. He lives on the property as
20 well. So, I am looking to operate -- the
21 business name is (indiscernible) Flying Fur, out
22 of the garage. There was a diagram that my
23 husband drew up and you guys should all have
24 copies of that as well. There's a third bay to
25 our garage that is already separated with a wall

1 and everything. It was there when we purchased
2 the property basically in September. So, we're
3 just looking to officially make that into a
4 salon. So, I don't have to have customers coming
5 into my home, if that was an option, or anything
6 like that. And it would be economical to do
7 this, opposed to putting a shed or anything on
8 the property as well -- to groom out of that
9 separately from the -- from the house.

10 CHAIRMAN JOHN SIMMERMON: How many dogs
11 do you expect to have there at any one time?

12 KAYE LORENZONI: It depends on the size
13 of the dog, to be honest with you. If I'm doing
14 big dogs all day, maybe three dogs a day, you
15 know.

16 CHAIRMAN JOHN SIMMERMON: Well, I mean,
17 will they all be there at the same time?

18 KAYE LORENZONI: No.

19 CHAIRMAN JOHN SIMMERMON: Yeah, that's
20 what I --

21 KAYE LORENZONI: No. You'd be looking
22 at maybe one to two dogs at a time on the
23 property. Go ahead.

24 CHAIRMAN JOHN SIMMERMON: And no
25 boarding?

1 KAYE LORENZONI: Yeah, I'm --

2 CHAIRMAN JOHN SIMMERMON: Like, it
3 would just be during the groom and then when the
4 customer --

5 KAYE LORENZONI: Yeah. Not looking to
6 do any daycare, no boarding, nothing overnight.

7 VICE CHAIRMAN CURT STEPHENSON: Right.
8 And how many parking spots do you have there now?

9 KAYE LORENZONI: Six? The whole
10 driveway --

11 ROBERT LORENZONI: The driveway is like
12 40 by 70, so --

13 CHAIRMAN JOHN SIMMERMON: That would be
14 one things that -- it's easy to have a car there
15 dropping one off and a car there for picking one
16 up.

17 KAYE LORENZONI: Yeah. It's three cars
18 wide, our driveway is. So --

19 CHAIRMAN JOHN SIMMERMON: Because you,
20 kind of -- you need to consider that.

21 KAYE LORENZONI: Yeah.

22 CHAIRMAN JOHN SIMMERMON: Because you
23 could have two clients there at the same time,
24 one dropping off, one picking up.

25 KAYE LORENZONI: Yeah.

1 CHAIRMAN JOHN SIMMERMON: So, a minimum
2 of two, is what you said?

3 KAYE LORENZONI: Mm hmm. Yeah.

4 CHAIRMAN JOHN SIMMERMON: And are you
5 going to have a sign?

6 KAYE LORENZONI: Undecided.

7 CHAIRMAN JOHN SIMMERMON: It also might
8 help people from pulling into your neighbors'
9 driveway.

10 KAYE LORENZONI: Try to keep them out
11 of the cornfield next door.

12 CHAIRMAN JOHN SIMMERMON: Yeah.

13 KAYE LORENZONI: Google Maps has been
14 difficult with our address. So --

15 CHAIRMAN JOHN SIMMERMON: Yeah, we
16 always kind of like to encourage a small sign or
17 something just so they don't bother other people.

18 KAYE LORENZONI: Yeah.

19 CHAIRMAN JOHN SIMMERMON: Does anybody
20 else have any questions or comments? All right,
21 thank you.

22 KAYE LORENZONI: Okay. Thank you.

23 RACHAEL CHRISTENSON: Thank you. Glad
24 you bought the house too. Public.

25 CHAIRMAN JOHN SIMMERMON: Public

1 opinions. Does anybody else have a -- want to
2 comment on this? Neighbor, whatever? All right.

3 RACHAEL CHRISTENSON: Okay. I just
4 want to reiterate that this is a Special Use
5 application, so this is a use that is generally
6 allowed in a Conservation Residential District,
7 and this is an opportunity for the Board to
8 review what this use is and put any conditions
9 that you feel are necessary on it, in addition to
10 what they have supplied in their business plan.

11 Like I said, my staff recommendation is
12 to approve the application, just as long as she
13 follows her business plan. So, that means that
14 if she were to expand at some point and wanted to
15 do a -- if you did want to do a boarding business
16 out of there, then she would have to come back to
17 this Board and get approval on that piece of it.

18 And if she was going to do any
19 modifications to her house in regards to what the
20 structure looks like, that would also kick her
21 into coming here and talking to the Board again.

22 CHAIRMAN JOHN SIMMERMON: Yeah, there's
23 no change to the outside at all, right?

24 KAYE LORENZONI: No.

25 RACHAEL CHRISTENSON: No. So, if

1 there's not any other questions, you know, again
2 my approval -- or I would recommend this to be
3 approved with the conditions that I had on the
4 recommendation with her business plan.

5 Findings of facts. I guess I can go
6 over that piece of it. I don't think that it
7 would be -- it would negatively impact public
8 health, safety, morals, or general welfare. The
9 requirements and development standards are being
10 met. It will not subvert or permanently injure
11 other property or uses in the same district and
12 vicinity; and it is consistent with the character
13 of the zoning district of the comprehensive plan.

14 CHAIRMAN JOHN SIMMERMON: All right,
15 you've all seen the findings of facts and heard
16 from the petitioner. May I have questions from
17 the Board? If not, entertain a motion.

18 BOARD MEMBER JERRY STAMM: I make a
19 motion to accept the special use petition, 2022-
20 SU-009, along with the submitted business plan
21 and with the findings of facts from the staff.

22 CHAIRMAN JOHN SIMMERMON: Second?

23 VICE CHAIRMAN CURT STEPHENSON: Second.

24 CHAIRMAN JOHN SIMMERMON: First and
25 second. Roll call vote?

1 OFFICE COORDINATOR STACEY HINTON: Yes.

2 Cory Bohlander?

3 BOARD MEMBER CORY BOHLANDER: Yes.

4 OFFICE COORDINATOR STACEY HINTON:

5 Jerry Stamm?

6 BOARD MEMBER JERRY STAMM: Yes.

7 OFFICE COORDINATOR STACEY HINTON: Curt

8 Stephenson?

9 VICE CHAIRMAN CURT STEPHENSON: Yes.

10 OFFICE COORDINATOR STACEY HINTON: And

11 John Simmermon?

12 CHAIRMAN JOHN SIMMERMON: Yes.

13 OFFICE COORDINATOR STACEY HINTON:

14 Thank you.

15 RACHAEL CHRISTENSON: If you had

16 petitioners -- oh, go ahead.

17 CHAIRMAN JOHN SIMMERMON: Oh, yeah.

18 The petitioners can leave, if they want.

19 RACHAEL CHRISTENSON: I was just going
20 to say that. You don't have to stick around. If
21 you guys want to go, you are all able to leave.

22 Okay, our last petition to discuss is
23 actually some old business. Let me wait for
24 everyone to kind of get settled down. This is
25 Petition Number 19-SU-005. The location is

1 actually multiple locations in Madison County.
2 The petitioner is Lone Oak Solar Energy, LLC, and
3 the zoning district that we're working with is
4 the Agricultural Zoning District. And the
5 request is specifically to modify Condition 19 of
6 Case 2019-SU-005, to replace with the words, "The
7 project shall be complete and operations on or
8 before December 31st, 2025."

9 I'm just going to give an overview of
10 the project history. I want to make sure that we
11 are all aware that we are talking about the
12 modification to Condition Number 19, the
13 timeline. This has already been approved by the
14 Board of Zoning Appeals in 2019. So, this
15 petition that we are discussing today isn't going
16 back to rehash the other conditions; this is
17 solely looking at Condition Number 19.

18 If we are going off track with that,
19 I'm going to try to pull you back in. And again,
20 we're doing 25 minutes for -- did you just say
21 good luck, Curt? (Laughs.) We're going to do 25
22 minutes for the petitioner to speak after my
23 staff report is done. Then we'll give the public
24 30 minutes to speak, and however the public wants
25 to use that 30 minutes is okay. If you want to

1 do, you know, two minutes a person or 10 minutes
2 a person, but we are going to limit it to 30
3 minutes.

4 And then after the public has time to
5 speak, we will give the petition an additional
6 five minutes to speak just to address any issues
7 that were brought up during that public comment
8 period. Okay?

9 So, we all know what the guidelines are
10 and we're going to try to stick to those as best
11 as possible. So, I appreciate everyone's efforts
12 in this today.

13 Project history. The Special Use
14 petition 2019-SU-005 was approved by the Board of
15 Zoning Appeals on September 24th of 2019 to
16 provide for the development of a solar farm to be
17 known as Lone Oak Solar. This is on
18 approximately 1,200 acres in Pike Creek and
19 Monroe Townships in Northern Madison County, and
20 there were 19 conditions that were approved as
21 part of this project approval.

22 The petitioner has properly filed,
23 advertised, and notified a request for
24 modification on Condition Number 19. The
25 petitioner is requesting that this -- or is

1 stating that this will be completed by December
2 31st, 2025 or two years after issuance of a final
3 non-applicable -- appealable -- wrong word --
4 order of a court of competent jurisdiction,
5 affirming the condition modification by the Board
6 of Zoning Appeals. So, basically, that says
7 that, you know, if this does go to court again,
8 that we are not necessarily bound by that
9 December 31st, 2025 deadline. That when they're
10 able to actually start the project, they will
11 have two years after any litigation happens to
12 continue to construct this. So, we don't have to
13 come back to this again.

14 CHAIRMAN JOHN SIMMERMON: Right, the
15 original one -- the original one did not have
16 that.

17 RACHAEL CHRISTENSON: Correct. The
18 original one only had the deadline. It did not
19 give any wiggle room for time if this went to
20 litigation.

21 CHAIRMAN JOHN SIMMERMON: So, we voted
22 -- when we accepted that petition, we accepted it
23 as completely done by 2025, no matter what
24 happened with the courts?

25 RACHAEL CHRISTENSON: Originally, it

1 was approved for 2023, not 2025. They're asking
2 for the --

3 CHAIRMAN JOHN SIMMERMON: I'm sorry.
4 For '23. (Indiscernible) --

5 RACHAEL CHRISTENSON: Correct.

6 CHAIRMAN JOHN SIMMERMON: For '23, but
7 that included that they have to go to court or
8 whatever, appeal it. That was still included --

9 RACHAEL CHRISTENSON: And that's what
10 we're discussing today. So, that, I think,
11 should be part of your Board discussion.

12 CHAIRMAN JOHN SIMMERMON: That's very
13 important...

14 RACHAEL CHRISTENSON: So, obviously,
15 this did go to litigation. You know, as things
16 are getting litigated, I think that property
17 owners or project owners are not able to move
18 forward on their project if there's -- you know,
19 it's a delay on their part -- to be investing in
20 something that could get overturned by a court.
21 So, that's what has caused this situation to be.

22 The other thing that has happened
23 within the last couple years is, of course, we've
24 had the pandemic, which has resulted in supply
25 chain issues. And that is another thing that our

1 petitioner would like to talk about today. So,
2 those are kind of the two big issues, is that
3 this did go to litigation; the second thing was
4 we've had a pandemic and we've had some supply
5 chain issues.

6 So, with that, I will let the
7 petitioner go ahead and speak first, then we'll
8 open it up to public comment, for rebuttal, and
9 then I can talk about staff recommendation, and
10 then you guys can discuss and make a motion on
11 how you want to move forward.

12 MARY SOLIDAY: So, Ms. Christenson, I
13 have a handout. There are three things that I'll
14 talk about -- and here's a packet of information.

15 Okay, well, good morning, members of
16 the Board. My name is Mary Soliday. I'm an
17 attorney. I'm based in Indianapolis. I may be
18 familiar to most, if not all, of you. I was the
19 applicant's attorney back in 2019 and remain
20 involved with Lone Oak Solar and Invenergy. My
21 address is 2700 Market Tower, Indianapolis.

22 With me is Hannah Pawelczyk, who is the
23 project manager for Indiana for Invenergy, and
24 Dan Goldstein, who is overseeing this project.
25 They can answer your questions particularly

1 regarding supply chain issues that Invenergy is
2 facing.

3 So, let me start at the beginning --
4 and I think Ms. Christenson did a very nice job
5 of explaining that we are here to modify only one
6 condition to do with 19 conditions at Lone Oak
7 Solar. We are not here -- and I've discussed
8 this with your attorney, Mr. Graham -- to
9 relitigate your approval, which were really two
10 approvals -- May of 2019 and September of 2019.
11 We are here to talk about the need to modify
12 Condition Number 19.

13 So, we filed what is called a letter of
14 intent, and what we did was try to explain the
15 two issues that bring us here today. The first
16 is that we all know that this project was
17 approved in the fall of 2019. The pandemic hit
18 this country March of 2020. That has caused
19 issues with securing necessary materials and
20 supplies. There's no question about that.

21 But I think what's also important to
22 emphasize is the litigation, frankly, is the main
23 reason we're here today. And I'd like to just
24 take a moment and kind of walk through that
25 timeline because it literally was a two-year

1 period. It's kind of ironic because we're
2 seeking a two-year extension and for that reason.
3 But it literally was a two-year period from
4 initiation of litigation, which by the way, ended
5 up in a reported case in Indiana for the Indiana
6 Court of Appeals, and a ruling that where the --
7 where Invenergy, its investors, its lenders would
8 feel comfortable proceeding. So, there's a two-
9 year period there. So, let me just kind of
10 briefly recite what was involved.

11 So, first of all, Indiana law requires
12 a judicial appeal within 30 days to be filed with
13 the local court, which happened in October of
14 2019. That was filed on October 24th, 2019.
15 Neighbors and multiple parties -- I'm sure many
16 are here today -- filed a petition for judicial
17 review of the BZA's approval. Those petitions
18 challenged the original petition, which was
19 approved in May of 2019, and the secondary
20 petition. And just to remind everybody, we had
21 two applications because the first approval
22 imposed a 500-foot setback, which we continue to
23 honor and are planning. And we need more land to
24 meet that setback, and I think the Board members
25 in place at the time remember all this.

1 So, we had a second application. We
2 had new Board members come in in August of 2019.
3 And then in September of 2019, the secondary
4 application was approved. So, in July of 2020 --
5 so, not quite two years ago -- the trial court
6 held a hearing on the neighbors' petition. On
7 November 2020, the trial court entered detailed
8 findings of fact and conclusions in two separate
9 orders denying the neighbors' relief, that is
10 affirming the original petition and the secondary
11 petition.

12 The neighbors then took an appeal to
13 the Indiana Court of Appeals, which affirmed the
14 trial court in all respects, June 21, 2021. So,
15 just slightly over a year ago. The neighbors
16 then sought transfer to the Indiana Supreme Court
17 and the Indiana Supreme Court denied that -- it's
18 called a Petition to Transfer. That was denied
19 in October of 2021.

20 So, again, going back to the fact that
21 the second application was approved in September
22 of 2019, and the Indiana Supreme Court denied the
23 petition to transfer in October 2021, that's
24 slightly over two years. So, again, all of this
25 litigation resulted in a recorded decision in

1 Indiana case law Burton v. Board of Zoning
2 Appeals of Madison County. So, your decision is
3 marked in history in Indiana judicial laws.

4 So, I say all this again to sort of set
5 the table for the fact that this, in our view, is
6 simply a matter of fairness to the project. We
7 are not, again, seeking any relief from any of
8 the other very strict conditions imposed by this
9 Board. We would like to build this project.
10 There's great demand for solar energy. So, I
11 mean, I -- well --

12 WOMAN 1: (Indiscernible) --

13 RACHAEL CHRISTENSON: Can you please be
14 quiet until it's your turn to talk? Thank you.

15 MARY SOLIDAY: Thank you. So, I'd like
16 to be careful with your time this morning. And
17 so, I think that I'd like to go to what our ask
18 is. And then, Hannah, do you mind saying a
19 couple words about sort of Invenergy's
20 perspective, particularly on supply chain and the
21 delays that the litigation has caused the
22 project, if you don't mind? Okay.

23 So, the specific ask today is we have
24 filed the language that Ms. Christenson read.
25 Yeah, in a perfect world we'd like to have two

1 years after issuance of any final non-appealable
2 order, simply because this decision, were you to
3 make it today, is appealable to a court. And so,
4 will there be another appeal? I have no idea.
5 But I'm not sure any of us want to come back two
6 years from now to address this again if there's
7 two more years of litigation. But that's
8 obviously your decision.

9 So, originally, we filed seeking an
10 extension of two years through December 31, 2025
11 to have the project operational. What we also
12 have done -- and Mr. Graham has reviewed these --
13 is submitted findings of fact for your
14 consideration. Because, as you are aware, if
15 this were to be litigated, the court would look
16 at findings. And so, we have prepared them. And
17 I think Ms. Christenson's looked at them as well.

18 So, our specific request is for a
19 motion to extend -- or modify Condition Number
20 19, as was read into the record. And I'd be
21 happy to read it again in my five minutes of
22 conclusion with specific findings of fact. So,
23 Hannah, would you -- can you --

24 CHAIRMAN JOHN SIMMERMON: I have one
25 question for you.

1 MARY SOLIDAY: Yes, sir.

2 CHAIRMAN JOHN SIMMERMON: On this

3 delay, if it's a two-year delay --

4 MARY SOLIDAY: Yeah.

5 CHAIRMAN JOHN SIMMERMON: -- we were
6 never, ever shown contracts or anything like that
7 between you and the landowners. What does that
8 delay do to their contracts?

9 MARY SOLIDAY: Hannah, can you address
10 that? So, I'm going to call Hannah Pawelczyk,
11 who is the Indiana development manager for
12 Invenergy.

13 HANNAH PAWELCZYK: Good morning. My
14 name's Hannah Pawelczyk, as Mary mentioned. We
15 do have enough time in the leases we've signed
16 with participating landowners to account for
17 potential delays here while we've completed
18 studies. So, we have enough of what we call the
19 development term to cover this period before we
20 can start construction.

21 CHAIRMAN JOHN SIMMERMON: How much time
22 are you talking about?

23 HANNAH PAWELCZYK: Left?

24 CHAIRMAN JOHN SIMMERMON: Yes.

25 HANNAH PAWELCZYK: We have up to two

1 years more currently, at least for our oldest
2 leases, but have extension options within those
3 to continue beyond that.

4 CHAIRMAN JOHN SIMMERMON: But that
5 would be between you and the landowner for the
6 extensions?

7 HANNAH PAWELCZYK: We have the ability
8 to extend in communication with the landowners.
9 But that's correct, between us and the
10 landowners.

11 CHAIRMAN JOHN SIMMERMON: The change in
12 land values and economic situations that's
13 happened in the last two years, do you see any
14 differences in compensation to the landowner or
15 are you keeping the strict contracts that you had
16 from the beginning?

17 HANNAH PAWELCZYK: We have the same
18 terms that were included in our contracts, but
19 they do include an escalator to account for
20 factors like inflation.

21 CHAIRMAN JOHN SIMMERMON: Okay, that's
22 the only question I have on that at this time.

23 HANNAH PAWELCZYK: And just, if I may,
24 to circle back to Mary's comments and questions
25 on our petition here and effects of the supply

1 chain -- certainly, the pandemic has delayed key
2 supplies for most every industry. The solar
3 industry is certainly one of them. But the key
4 part is with these appeals, we're not able to
5 move forward in the final stages of development
6 for this project. You can't get offtake and you
7 can't get construction financings with appeals
8 pending. So, that's something we'd be looking to
9 work towards now but just haven't been able to
10 for the past two years.

11 We've certainly been trying everything
12 we can to move the project forward, whether
13 that's title curatives, other final studies. But
14 those key items of getting the power contracted
15 and getting construction financings take months,
16 if not a year or more of work, and it's just not
17 possible when appeals are pending.

18 MARY SOLIDAY: I think that concludes
19 our presentation. We're again happy to answer
20 any specific questions and we'll obviously hold
21 onto our five minutes for rebuttal. So, thank
22 you so much.

23 RACHAEL CHRISTENSON: Does the Board
24 have any more questions for Lone Oak
25 representatives right now?

1 CHAIRMAN JOHN SIMMERMON: No.

2 RACHAEL CHRISTENSON: Okay. With that,
3 I'm going to stop the time that we had for Lone
4 Oak, and we will go ahead and get started with
5 the public input portion of the meeting. If you
6 are coming up to the podium to speak, we ask that
7 you sign in. There's a sign-in sheet. So,
8 please, sign in and let's do one at a time. And,
9 please, let's keep quiet. If you are -- if
10 there's disruptions, we will be asking you to
11 leave. So, I don't want to do that to anyone at
12 all. I would like everyone to participate fully
13 in this. However, we do need to be respectful of
14 one another so that we can all hear each other
15 and give each other the appropriate time to
16 speak.

17 So, with that, we'll go ahead and kick
18 it off. Again, make sure you sign in.

19 BETHANY KELLER: Rachael, these are for
20 you. I'd like those on public record, please.

21 RACHAEL CHRISTENSON: Sure.

22 BETHANY KELLER: Hello. Do you need me
23 to say my name and address as well?

24 CHAIRMAN JOHN SIMMERMON: Please.

25 BETHANY KELLER: Okay. Bethany Keller,

1 3764 West State Road 20, Alexandria.

2 During the October 2019 County Council
3 meeting, Katya, who was Invenergy's product
4 manager at the time, said that Lone Oak Solar
5 Energy Center would be competing with renewable
6 energy resources nationwide to provide electrical
7 power and said that the reduced cost during tax
8 abatement was necessary.

9 Following the denial of a tax
10 abatement, she wrote an email to the Herald
11 Bulletin -- and this was in the paper October
12 22nd of 2019. "Given the uncertainty around tax
13 abatement, Lone Oak has decided to delay the
14 start of construction on the project that was
15 planned for this fall. We are hopeful we can
16 come to an agreement on a tax abatement at some
17 point in the future."

18 The decision to delay construction in
19 October 2019 was a business decision within
20 Invenergy's control. The first petition, the
21 neighbors had filed for judicial review, and that
22 litigation had begun months earlier in June 2019.
23 Yet, Invenergy still continued with the project
24 and proceeded to ask for a tax abatement.
25 Additionally, announcement of the construction

1 delay came long before pandemic supply chains
2 could have been predicted. The delay is the
3 fault of Invenergy, and a completion date
4 modification should be denied.

5 At the January 2020 Council meeting,
6 the County Council voted to rescind the ERA.
7 Then Councilman Pete Heuer made a statement -- I
8 gave you a copy of an excerpt of the
9 transcription from that meeting -- and he said,
10 they, Invenergy, "can come back for another ERA,
11 tax abatement, whatever they want to. I don't
12 know about the rest of the council but I'm
13 actually quite appalled with Invenergy.
14 Councilmember Steve Sumner and I were personally
15 attacked. Me in my own neighborhood with a flyer
16 from a company that is bullying us into changing
17 our vote". Pete Heuer then went on to lose the
18 2020 primary election only months later.

19 The Indiana Court of Appeals ruled in
20 favor of Invenergy June 21st, 2021. The
21 following week on July 2nd, Katya was quoted in
22 the Herald Bulletin -- I gave you a copy --
23 saying, "We are hopeful the county will consider
24 approving an abatement for the project." Nearly
25 a year later, Invenergy has yet to apply for a

1 tax abatement even though they've said it's
2 necessary for the construction.

3 I wholeheartedly believe that Invenergy
4 has requested this extension only to buy them
5 time to influence our County Council election
6 this November, and then apply for a new tax
7 abatement with the 2023 County Council. If
8 Invenergy's business plan were financially
9 viable, they could have proceeded with
10 construction without being subsidized by our tax
11 dollars. It is therefore not warranted to grant
12 an extension because Invenergy chose to delay
13 this project for their own financial gain. Thank
14 you.

15 KATRINA HUNTER: Katrina Hunter, 10040
16 North, 500 West. So, as most of you know, my
17 home will be affected on three sides from Lone
18 Oak Solar. In 2019, we did have our home
19 appraised. The appraiser at that time told me
20 that we might as well bulldoze our home, sell it
21 to the -- the Lone Oak because we're not going to
22 get anything out of it.

23 That frustrates me. It frustrates a
24 lot of people. And as BZA members, you were told
25 to study the Indiana Citizens Planner Guide as

1 education for your roles to serve Madison County.
2 Chapter 3 is called "Avoiding Pitfalls" and on
3 Page 55, the title of the chapter is called
4 "Beware of Takings."

5 I asked Denise, which she'll have a
6 copy of it to give to all of you when she gives
7 you her binder for real estate studies. In it
8 says, "takings can generally be defined as
9 seizure of private property or substantial
10 deprivation of the right to its free use or
11 enjoyment as a result of government action for
12 which the property owner must be compensated. In
13 some cases, actions of a plan commission or BZA
14 that have good intentions can be taken to court
15 and determined to be takings, causing numerous
16 problems."

17 I have a petition with me today that
18 has 28 signatures on it from homeowners. They're
19 either going to be affected on size, three, four,
20 two, one, some of them zero but they're going to
21 be in close enough proximity that this will
22 affect the property value.

23 I don't want to live next to an
24 industrial nightmare and neither does anybody
25 else. And if Lone Oak gets built, we will have

1 our homes appraised before and after
2 construction. And if it is determined that we
3 have lost value on our homes, we agree to consult
4 legal counsel together -- maybe separately -- but
5 there will be legal counsel consulted to bring a
6 suit against Madison County and the landowners
7 signing these leases for the unfair taking of
8 property values.

9 It has been told to us that you had to
10 vote for Lone Oak Solar because they were going
11 to sue the county. Well, the people here have
12 proved that we can sue the county. We can sue
13 the government. We have. We will again. After
14 all, citizens of Madison County fought for 38
15 years to stop the Mallard Lake dump and we can be
16 in this legal battle for the long haul too.

17 So, today, we are putting our
18 government and the landowners on notice, and
19 we're not going to stop fighting. I only have 28
20 signatures on here, but since just this morning
21 I've had 20 more step up and tell me that they
22 would've signed it, had I been able to get them -
23 - if they were not on vacation or our schedules
24 meshed up.

25 So, I thank you for your time but

1 please consider.

2 SAM HEISER: Hi. My name's Sam Heiser.
3 I live over in Cicero, Indiana, own some property
4 here, and I just wanted to say, Mr. Simmermon,
5 your prayer about being grateful for freedom I
6 think is pretty applicable here. A farmer can
7 raise corn, or soybeans, or whatever he pleases;
8 I don't know why he couldn't raise electricity.

9 I have -- I'm not going to be living
10 net to these places, but I've got solar panels of
11 my own 200 feet from my house, and I can
12 guarantee you my house is appraising just fine
13 the last couple of years -- just been tremendous
14 property values. And the only thing that bugs me
15 about them is sometimes it's hard to see the
16 white tail on the wild turkeys, and I just kind
17 of move over a little bit and I can see them just
18 fine. And when I look at my electric bill, they
19 look pretty darn nice.

20 The only thing that's really changed in
21 the last couple years is that we've had these
22 legal battles and also the fact that gas prices
23 are coming off the roof here and we've got energy
24 dependence on all these countries. We've got
25 Russia that's totally dependent upon -- or Europe

1 totally dependent on Russia. God made the
2 sunshine on every square inch. It's right there
3 for the taking. It doesn't pollute. You guys
4 looked at this very, very closely in 2019 and
5 made sure that there weren't any issues with the
6 tiles or anything else. You were thorough. The
7 only thing that's changed is we need this more
8 now than we ever did before.

9 I've got to go to work, so I apologize.
10 But I think you did a good job in 2019. I don't
11 see what's changed. And I understand people not
12 wanting change but, man, I've got solar panels in
13 my yard, and I'll tell you what, they're just
14 fine. Thank you.

15 MELISSA RUBRECHT: Hi, my name --
16 excuse me. Hi, my name's Melissa Rubrecht. I'm
17 at 10636 North 400 East in Alexandria. I just
18 wanted to speak for a minute today and reiterate
19 what Denise and everyone else has said today.
20 There are a lot of reasons why we need more
21 farmland in this day and age, as far as what
22 grocery prices are, and to take more farmland out
23 of commission and use it for this purpose is
24 wrong. And I feel strong about that. And I
25 don't speak just for myself.

1 I wanted to let you know that I worked
2 on a political primary campaign this spring. I
3 made 500 phone calls to residents in Monroe
4 Township, and two people were in favor of solar.
5 Every other person I spoke to said, you know,
6 what do we do -- what do we need to do. And we
7 had an impact and changed the outcome of that
8 election.

9 So, I ask you to reflect on the opinion
10 of the people who have to live with this and
11 consider that in your vote today. Thank you.

12 DENISE SPOONER: My name is Denise
13 Spooner. I'm at 139 West Oak Street, Alexandria.
14 I'm a licensed real estate broker 14 years in
15 Madison County. I have specialized education in
16 property management and land owning and I served
17 on the Madison County BZA for the majority of
18 2020, was appointed to the Planning Commission in
19 September of '21 by the County Cooperative
20 Extension.

21 I've extensively studied Indiana
22 Citizens Planner Guide and have continued my
23 education in land use development in various
24 classes and webinars. For the past three-and-a-
25 half years, I continued research study and I stay

1 educated on large scale solar farms regarding
2 their approval processes, construction, and
3 impacts of their surroundings. I am not an
4 attorney and nothing I say today is to be
5 considered as legal advice. I defer to Jeff
6 Graham as the County's attorney.

7 Lone Oak's statement today in that
8 letter of intent says, "These circumstances, all
9 completely outside of the control of the
10 applicant, have required the project to be
11 delayed accordingly. As a result, a modification
12 of Condition 19 to allow the project to be
13 constructed and operational on or before December
14 31, 2025 is not only necessary but also
15 warranted, justified, reasonable and
16 appropriate."

17 In the front page of your binder, I've
18 defined those words for you. Warranted, meaning,
19 deserved and necessary; justified, meaning, just
20 and right; reasonable, governed by or being in
21 accordance with reason or sound thinking being
22 within the bounds of common sense and care;
23 appropriate means fit, suitable and proper.

24 Page 18 of your Indiana Citizens
25 Planner Guide states that a Board of Zoning

1 Appeals is a -- direct quote -- "administrative
2 Board that is quasi-judicial in nature. A quasi-
3 judicial entity operates more like a court than a
4 legislative body and uses many standards and
5 procedures like the courts. BZA decisions are
6 required by state law to be guided by specific
7 criteria and made based upon facts, not
8 opinions."

9 So, in case you didn't know or needed
10 reminding, essentially you are judges, and this
11 is a court. In cases such as this that generate
12 a lot of controversy, whereas experts have been
13 called to testify or to highly suggest that you
14 ask them to swear in under penalty of perjury to
15 tell the truth. I do consider myself a highly
16 educated individual in regards to large-scale
17 solar and their impacts to health, welfare,
18 safety, and property values.

19 I mostly cite education that I have
20 learned from other experts but, regardless, I
21 voluntarily will state today that I, Denise
22 Spooner, do solemnly swear to tell the truth, the
23 whole truth, and nothing but the truth, so help
24 me God.

25 Secondly, I want to make it clear that

1 I do respect your positions. I was given legal
2 advice today and I was told to shoot every arrow
3 that I have in my quiver, and I plan to do that.

4 I'm going to skip to number two and
5 state that the BZA previously failed that the
6 elements for special exception would be met only
7 if certain conditions were imposed. This is what
8 you stated. This is what you ordered in your
9 findings of fact. All the conditions must be
10 met.

11 Now, those conditions are not being
12 met. Lone Oak needs to seek a change of one of
13 them. This request now reopens the door,
14 according to our legal team. Would the proposal
15 meet the requirements for a special exception
16 with new requested conditions? And so, we are
17 back to the four questions that BZA must answer
18 and give according to the findings of fact stated
19 by law. And by granting these changes now, you
20 are stating that you were wrong in 2019.

21 So, I'm going to move on to Number 3.
22 Lone Oak has provided Exhibit A, which is their
23 list of names and property owners that they
24 allege to have leases and contracts with. We
25 argue that at least one of these parcels was

1 sold, rendering some data inaccurate.

2 They had submitted Exhibit B, which
3 contains a few short paragraphs pulled from this
4 lease in question. We'll make the argument that
5 Lone Oak has not proven that they can, in fact,
6 speak for or on behalf of the owners. Random
7 provisions purportedly to be torn -- or taken
8 from the lease are inadequate without the entire
9 lease showing signatures, proving that this was
10 executed and legally binding contracts and that
11 they exist. You cannot cherry-pick a few
12 sections out of context. What is above and below
13 these provisions is important as well as
14 understanding how these impact and limit
15 landowners.

16 Obviously, Lone Oak doesn't want anyone
17 to see their leases. I've been a landlord for 14
18 years, and if I chopped out a couple paragraphs
19 of my lease and presented it before a judge in an
20 eviction case, I'd be laughed at, and my case
21 dismissed.

22 In addition to not proving -- or
23 providing legal binding lease contracts to the
24 BZA, Lone Oak cannot prove that everyone that
25 supposedly signed these leases with them wants to

1 continue with this project. Without the original
2 executed leases and some kind of an amendment
3 being drawn up, signed, and given for an
4 extension of expiration dates from every
5 landowner, Lone Oak cannot prove that their
6 project is still viable and desired by all.
7 According to our attorney, this is one of the
8 single most important legal arguments today, and
9 we ask Mr. Graham and members of the BZA to
10 demand legal proof and stand on this issue as not
11 justifiable, appropriate, warranted to grant the
12 extension because Lone Oak has not proven they
13 can act on behalf of the landowners without these
14 executed leases and all -- they all still want to
15 participate beyond these expiration dates.

16 We make the argument that Lone Oak
17 should not use litigation as an excuse because
18 there was no injunction and there was no stay
19 from any court that they couldn't move forward.
20 They could've proceeded while the case was being
21 challenged but chose not to. Lone Oak has
22 presented no evidence that they can meet the new
23 deadline that they have even proposed. There's
24 no statements from suppliers, there's no orders
25 of equipment showing expected delivery dates,

1 equipment, efforts to build a solar farm. They
2 haven't even gained drainage Board approval.
3 Where have they been? If they wanted another tax
4 abatement, they could've come back before the
5 council at any time. They have not done so.

6 It's not warranted to grant an
7 extension knowing no court's prevented them from
8 building and they've made no effort to try and
9 move forward. We make the argument that Lone Oak
10 has openly declared that they were delayed --
11 that they were going to delay this farm because
12 of tax abatement has been covered.

13 I'm going to move on to address that
14 our attorney has stated that this question opens
15 the door. I will not talk about anything that's
16 prior been said in 2019, but we certainly have a
17 lot of new data that we've learned since then
18 that covers tons of property values. In that
19 binder you will have reports from Mary McClinton
20 Clay, a very experienced -- over 30-some years in
21 Master Appraisal Institute, where her designation
22 is imminent domain and damage studies. She is
23 the key appraiser throughout the United States
24 that has been testifying everywhere, and when she
25 does, it is unanimous in favor of her reports.

1 I also want to bring your attention to
2 in September of 2020, it was discovered that
3 Tommy Cleveland, Lone Oak's expert who testified
4 in 2019 -- he falsely claimed that the North
5 Carolina cooperative extension authored his
6 research paper and that is completely untrue.
7 And the head of the property cooperative
8 extension in North Carolina has provided a
9 statement to these facts. It's in your binder
10 and I'd highly recommend that you please read
11 them.

12 After realizing that there's a lack of
13 agronomists and soil scientists being sought on
14 this, I want you to please read and exhibit -- on
15 Line Item 7, how Professor Von Heiniger's email
16 communication with me is something that every
17 farmer needs to see. He addresses the pollinator
18 sheet, (indiscernible) GreenBiz, farming under
19 solar panels. And he included in his email to
20 say to me, "As you can see, common sense goes out
21 the window whenever solar companies get involved
22 in the conversation. We are turning science on
23 its head. All of these things have no basic
24 scientific merit, just as the idea of free solar
25 energy has no scientific merit yet. We see so-

1 called researchers quoted in these articles that
2 are nothing more than garbage. Best wishes to
3 you and like our God, science is not fooled by
4 these falsehoods. These folks will reap what
5 they sow, and they're sowing destruction with all
6 that they touch."

7 We now have Steven Miller's study that
8 was in June 2020 where he completely did what
9 would happen if you took out these acres. The
10 impacts would be over \$82 million to Madison
11 County, up against Invenergy's promise of 26 in
12 revenue.

13 To the property values, Rhode Island
14 University has done a study on the entire state
15 of Rhode Island and Massachusetts. We have over
16 500,000 real estate transactions and 208 solar
17 farms that were looked at. This said, also these
18 results suggest extremely large disamenities for
19 properties in very close proximity. You need to
20 understand that the Rhode Island largest solar
21 farm is only 38 megawatts, and in Massachusetts,
22 7.1 megawatts. These are very small, only
23 affecting properties on one side. It is
24 definitely going to be a huge disamenity for
25 those that are surrounded by solar farms.

1 There's something else in this study
2 that was revealed, and it says this. Solar
3 installations require over 10 times more land
4 area than nonrenewable sources to generate the
5 same amount of energy, and the requirement of
6 large land tracts -- of large tracts of land for
7 their construction has become the largest cause
8 of land use change in the United States. Do you
9 know the three words that stand out to me the
10 most? Land use change. And it is common
11 knowledge, taught and expounded in land use
12 classes that once a change happens, it never goes
13 back to its original use. And this has been a
14 question that I have posed to so many.

15 If solar farms meet the comprehensive
16 plan to protect farmland, and the decommissioning
17 statements in those findings of fact state that
18 at the end of the life of the project, the
19 developer can replace those panels and continue
20 the energy source, then how does it protect
21 farmland when it never gets back to farming
22 activity. I asked Brad Newman this question last
23 year and he stated this. Sorry.

24 (Audio Tape Plays)

25 BRAD NEWMAN: (Indiscernible).

1 DENISE SPOONER: That's our former
2 planning director who gave me that statement in
3 2021. And that was after asking him, how does
4 this land ever return back to farming. I think
5 it's really important that you understand this is
6 a permanent land use change and no guarantee on
7 the landowners or the developers that they will
8 go back to farming. And that's in our
9 Comprehensive Plan.

10 The experts who performed this at Rhode
11 Island University accurately described what is
12 happening to America's farmlands. They're
13 experiencing a land use change at massive speeds.

14 In September 2020, appraiser Mark
15 Hechman from Pennsylvania released his report.
16 There's numerous impacts to that. What's so
17 important about it is that the BZA relied upon
18 the CohnReznick study in 2019. And you need to
19 know that he said about that study that it was
20 unacceptable, woefully inaccurate data, very
21 deceptive, misleading, fatally flawed analysis,
22 and lacked the transparency required to produce
23 an ethical and credible decision.

24 Another appraiser, Mary McClinton Clay
25 has provided new evidence regarding her

1 CohnReznick study as well. And I have been told
2 that in order to get this actual data you must
3 agree to sign a nondisclosure statement.
4 Therefore, this BZA did not even have that data.
5 You've read just an overall report about it.

6 So, appraisers have gained access,
7 though, to the data through third parties, and
8 once it is reviewed, they come to the same
9 conclusions that it contains errors, flaws, and
10 numerous representations. In addition to this,
11 you need to know CohnReznick failed to disclose
12 that their partner company, CohnReznick Capital,
13 provides numerous services to renewable energy
14 companies, including project finances, merger,
15 acquisitions, capital raising, tax advisory, and
16 restructuring. Therefore, if CohnReznick makes a
17 lot of money from renewable projects, then
18 wouldn't their real estate studies be a conflict
19 of interest?

20 In Sections 11 and 12, I go into
21 everything that Mary McClinton has said. And the
22 other thing that I wanted to bring out is that
23 Michael Maru, he falsely claimed to the Madison
24 County BZA that there were no property value
25 declines on the North Star Solar Farm in his

1 report. Mary McClinton Clay did that report and
2 provided it to me in 2020. And it that the
3 developer, when he went to sell those properties
4 back to the public, he lost over \$627,000 in
5 revenue. And she reviewed all of his data as
6 well and this is her quote. "It is my
7 professional opinion that this report failed to
8 adequately support its conclusion that there was
9 no diminution in value as a result of proximity
10 to the solar facilities, as cited. This was
11 compounded by reporting errors, lack of sales
12 analysis, in addition to withheld critical
13 information. It is fundamentally flawed and
14 incomplete on all accounts."

15 She goes on to talk about many other
16 things in her reports. It's a 90-page report
17 that I've given you and I would highly recommend
18 that you read it.

19 The first part of that, she gives you a
20 overall summary of everything that she's gained
21 throughout the entire U.S. and is -- and to this
22 date, is the most extensive review of injury to
23 property values yet.

24 I also am bringing it to the attention
25 of the Indiana Chamber of Commerce president. In

1 a letter to the editor regarding inflation, he
2 stated this. "The rush to implement green energy
3 policies is also to blame. These initiatives
4 have directed suppliers to go to the renewable
5 energy route at the expense of petroleum
6 production. Specifically, this has driven up
7 prices at the pump and for everything else related
8 to oil, the Biden administration has simply tried
9 to go too far, too fast with its energy policy."
10 I guess apparently it seems that Invenergy is its
11 own blame as to the reason why some of these
12 delays are happening.

13 And, lastly, Professor (indiscernible)
14 had submitted new information, and he stated this
15 week that Bjorn Lomborg, President of the
16 Copenhagen Consensus, and a visiting fellow at
17 Stanford's Hoover Institution, published a paper
18 in the Wall Street Journal entitled "The Rich
19 World's Claim at Hypocrisy" in which he states
20 unequivocally, "no country in the world has been
21 able to industrialize using renewable energy."

22 In closing, I know I'm very passionate
23 about this and I've never stopped seeking
24 education since 2019. I fought with all my heart
25 to defend what started out just to be this little

1 corner of northwestern Madison County, but then
2 grew to all of our county, and then all of
3 Indiana, and then the Midwest, and now my nation
4 that I love dearly.

5 The war that is going on in rural
6 communities across this country rages daily as
7 renewables take over our farmland and engulf
8 homeowners that do not want to live inside an
9 industrial power plant. If anything -- if any of
10 you or anyone here wish to speak with me
11 privately to discuss these studies, I will do so.
12 And I can only pray that God would guide you,
13 give you wisdom and courage to do the right thing
14 for our county. If you have any questions, I'd
15 be happy to answer them. Thank you very much for
16 the time that you've given me. I appreciate it.

17 PEGGY ROBY: My name is Peggy Roby. I
18 live at 4285 East 1000 North, Alexandria. When
19 Sam Heiser talked about living with solar panels
20 and having -- his home value hadn't gone down, I
21 rushed out to tell him if he had solar panels at
22 his house, he'd better get this meter that reads
23 how much dirty electricity is being released.
24 Because the solar panels contain carcinogens, and
25 they break down, and they're going to have to be

1 replaced. And these carcinogens, they collect
2 the solar energy. How else could we get the
3 solar energy collected?

4 I'm really shook up because of what he
5 told me when we were out there. But anyway, I
6 was warning him about getting a meter because
7 these carcinogens that are in the solar panels --
8 that energy is collected but then it's got to be
9 transferred. And the only way you can move that
10 energy from those panels is like, AC to DC or
11 vice versa -- but there's dirty electricity given
12 off. And it's a fact.

13 There's an Indiana study done by
14 Indians in the technology institute -- and they
15 did 200 studies between 2000 and 2018, and they
16 found that it does leave the farmland toxic.

17 So, anyway, I went out to warn Sam. I
18 get so nervous when I'm talking in front of
19 people. But I sent out -- went out to warn him
20 about getting a meter so he could know what's
21 coming into his home and might affect him. You
22 can get fibromyalgia, you can get headaches, you
23 can get cancer.

24 And I said to him, I said, do you have
25 a meter to monitor how much energy -- how much

1 this thermal electricity is affecting you? And
2 he said, no, ma'am. He said, no. He said, I'm
3 not bothered by these panels at all. And he said
4 the value of his house hadn't gone down. Well, I
5 said, so you have panels around you; what do you
6 think about the people who put the panels in? I
7 said, do you profit from it? And he is receiving
8 money from the solar company. He has panels that
9 are there because he signed on to receive
10 benefits from the solar company.

11 So, when he came up here, he didn't
12 mention that. And I said, Mr. Heiser, you didn't
13 mention that you're receiving profit from the
14 company. I'm sorry, he said, I should've said
15 that I was, you know, receiving -- you know,
16 signed on with them.

17 So, please don't be duped by somebody
18 coming and saying, oh, my home value's the same,
19 I'm not affected at all, I don't mind, I can look
20 around the corner and see the bobwhites. That's
21 not true. Our wildlife is going to take off and
22 be gone. I will have it three sides around me if
23 it goes in in Madison County and Alexandria.

24 I'm pleading with you, look into
25 space.com, read what Australia's doing. They're

1 going to space collection of solar energy; not
2 terrestrial. Indiana only has three prime hours
3 a day that we can even collect energy. I know my
4 time's up. Thank you very much.

5 RACHAEL CHRISTENSON: We have about
6 three more minutes left of public input. So,
7 let's please be respectful of the time.

8 LEE WALLS: Mine's going to be quick.
9 Lee Walls, 4955 West 1000 North, Franklin,
10 Indiana. Lone Oak Solar has said that they could
11 not move forward with the project during
12 litigation. That is an absolute lie and this BZA
13 needs to realize that. They have been working in
14 these fields, they have been testing, they have -
15 - as late as this last March, they were drilling.

16 So, the fact that they're claiming that
17 litigation has stopped them, that is an absolute
18 lie. Because I could not understand how they
19 were doing anything during litigation because I
20 also believe that should've shut them down, but
21 it did not.

22 These are not good community members,
23 folks. They will not be good community members.
24 They do whatever they want, whenever they want,
25 regardless.

1 So, I just want this BZA to know that
2 they are not telling you the truth when they said
3 they could not move forward, because they have
4 been moving forward ever since you approved this
5 to be built. Thanks.

6 KEVIN KELISH: Kevin Kelish, I live at
7 10413 North 700 West Elwood. And, folks, I mean,
8 all this is about money. Let's talk about
9 people's lives. Money -- how many people are
10 benefitting off of this? Just a few landowners,
11 and it's affecting lots and lots of good people's
12 lives that work and live out here and do things
13 right. And we're going to ruin their homes with
14 this just to benefit a few?

15 Like the one man who just spoke -- he's
16 from Cicero. Yeah, he don't care about nothing
17 around here. Most of them -- I mean, I'm sorry,
18 I know everybody in the neighborhood. I've been
19 here all my life. They -- it's all play money.
20 That's all it is, is play money. That's all this
21 world knows.

22 Let's get back to living. It's not
23 about money, it's about living. These people's
24 homes are going to be ruined. Their lives --
25 they're going to get up and move. And our

1 animals -- hell, yeah, our animals are important
2 to us. God put them here before us. Let's take
3 care of what we have. We just keep -- and
4 another thing -- all this stuff comes from China
5 -- we don't need China. If we can't make it
6 here, we don't need none of it. And all the
7 pollution it'd get to get it here.

8 It's not green, people, it's just bad.
9 It's money for a few. And if they didn't get
10 their 25 million upfront from our taxpayer money
11 that we work for, they wouldn't even be here.
12 They wouldn't be here. So, let's just let them
13 go.

14 I don't want to ruin these people's
15 lives. They're good people out here. Yeah, and
16 it's not about money. Let's -- this world needs
17 to change -- this all about money makes you
18 better than everybody else. That's all this is.
19 Let's be neighbors. Thank you --

20 RACHAEL CHRISTENSON: I did want to
21 read two emails that I got this morning. All the
22 other emails that we've received in the past week
23 or so we've included in your materials to review.
24 But I had one that came in at 4:53 a.m. and one
25 at 7:36, so I just want to make sure they're part

1 of all this.

2 The first one is from Josh Harris. It
3 says: "To whom it may concern. My family and I
4 have been residents of Madison County for six
5 years. I've enjoyed my little piece of land. We
6 moved to the country to have our quiet nights and
7 amazing sunsets and to be away from businesses
8 and industries. I cannot stress enough how
9 objective I am of this solar monster farm. These
10 panels are far more hazardous" -- sorry. "These
11 panels are far more hazardous to the environment
12 than the years of coal burning that they would
13 substitute and cannot be properly disposed.

14 A list of some of my concerns: what
15 are the chances of my water table being
16 contaminated; have there been testing of similar
17 sized panel farms less than 500 feet from a
18 residence; my view of sunrise and sunsets over
19 corn and bean fields will now be over an
20 industrial power plant.

21 Number 3. My property value will
22 decrease 20 to 40 percent, based on searches of
23 similar completed projects in other areas. There
24 are none of this magnitude.

25 Number 4. Not one kilowatt would be

1 used in this county. All of this power created
2 goes to the highest bidder, likely out of state.
3 They get perks -- they get the perks of power
4 without the byproduct of polluted grounds and
5 skies.

6 They have stated that" -- this is
7 Number 5. "They have stated that only local
8 contractors would be used, but the ones doing
9 testing on the land have all been from out of
10 state. I assume that means local to them. I
11 have and always will stand for bettering our
12 environment and supporting green ways, but this
13 is not the answer. This is about corporate greed
14 and government incentives.

15 I know my little voice won't count for
16 much, but I am screaming, do not do this to the
17 county residents. Thanks for listening. Josh
18 Harris."

19 The other one is from April Singer.
20 And she says that "Madison County does not want
21 solar panels, especially not on prime farmland.
22 Please vote no on Petition 2019-SU-005.
23 Sincerely, April Pricket." Well, her email says
24 April Singer, and she signed it April Pricket.
25 And that's, I think, all the public input that we

1 have.

2 The public input portion of the meeting
3 is up now, and we will allow for an additional
4 five minutes with the petitioner to address
5 anything that came up during public input.

6 MARY SOLIDAY: So, first of all, I'd
7 like to make sure that it's clear my comments
8 today are under oath, as are Ms. Pawelczyk. So,
9 first of all, I think the BZA is well aware, but
10 I need to say this for the record, that the BZA
11 sits as a quasi-judicial body and is not to be
12 having private conversations about this matter
13 with any particular party.

14 Number 2. I think it was stated by
15 Invenergy that testing was going on in the last
16 two years. That was not precluded by the
17 litigation. And the reason -- Mr. Graham, as an
18 attorney is well aware of this -- there was not
19 an injunction sought. And the reason the
20 opponents did not seek an injunction, the bond
21 would've been so cost prohibitive, it would've
22 been a multimillion-dollar bond.

23 And so, there were certain activities
24 that were going on. Those were not prohibited by
25 the litigation. But the core problems that

1 Hannah will speak to in just a moment again were
2 basically the fact that the project was not
3 financeable, it was -- it could not obtain
4 investors during the course of litigation.

5 So, Hannah, I'm going to have you say
6 under oath the current position of Invenergy is
7 that because power production costs have actually
8 gone down with solar, it's actually a less
9 expensive way to produce power than coal. What
10 is the company's current position on tax
11 abatement?

12 HANNAH PAWELCZYK: Yes, thank you. In
13 2019, the tax abatement was necessary, as quoted,
14 given the market at the time. And then denial of
15 the tax abatement did cause a slight delay at
16 that time. But since 2020, we've only seen costs
17 continue to go down. Solar's one of the lowest
18 cost forms of energy now. And with costs going
19 down and demand, especially from Indiana
20 utilities, continuing to increase, we do -- will
21 not and do not plan to pursue a tax abatement for
22 Lone Oak Solar. It's not necessary for the
23 project anymore, given the current market.

24 And as I mentioned earlier, we have it
25 contained with due diligence and title curative

1 tests, but with appeals pending, getting
2 construction financing, and getting offtake for
3 the project is not possible. Thank you.

4 MARY SOLIDAY: So, the final couple
5 minutes -- again, this is for a record, so I'm
6 sure this is obvious to you members of the Board.
7 Again, we're not relitigating the underlying
8 approval. I do find it interesting that the
9 lawsuits that were filed never made any
10 allegation about loss of property value. There
11 were various allegations but that was not one of
12 them. I think that claim's probably been waived,
13 but that can be decided another day.

14 So, leases, by the way -- I think
15 that's -- it's important to note that your case
16 file contains a sworn affidavit of Mr. Michael
17 Kaplan indicating under oath that he does have
18 authority on behalf of all the landowners to file
19 the application before you today. That is the
20 same process that was in place in 2019 where Mr.
21 Newman accepted a sworn affidavit of an officer -
22 - and this gentleman, Mr. Kaplan, is the senior
23 vice president -- indicating that it -- truly he
24 has and continues to have legal authority to file
25 the application.

1 As to drainage board, I think that
2 falls in the bucket of highly expensive to pursue
3 that approval. That's certainly on our list.
4 There's a very high level of engineering that has
5 to be done to obtain that approval. You all
6 have, to your credit, a very tough drainage
7 ordinance. And that is certainly something we
8 intend to pursue very soon. We haven't done it
9 yet.

10 So, I think, in sum, kind of
11 interesting in terms of what you heard this
12 morning. The Indiana Court of Appeals in the
13 Burton matter pointed two things out. One is
14 that your decision in 2019 was supported by
15 substantial evidence. It rejected the argument,
16 by the way, that the approval was in violation of
17 the Comprehensive Plan.

18 So, nothing has changed since then in
19 terms of -- heck, that that's a snapshot in time
20 as to what the court looked at in terms of the
21 record. We're not here, again, to relitigate the
22 2019 approval. There were references to various
23 folks who would've said this and would've said
24 that. That's completely irrelevant. We're here
25 today on this narrow topic -- and I guess I have

1 one minute -- and that's all I have to say. And
2 I am happy to answer any of your questions, as
3 with Hannah. So, thank you very much for your
4 attention.

5 RACHAEL CHRISTENSON: I think everyone
6 did a wonderful job sticking to the time. I'm
7 very proud of everyone.

8 Okay. At this point I will give my
9 staff recommendation. Because of the litigation
10 that was pursuing after the approval was made, my
11 staff recommendation is to approve the project as
12 presented. I am not going back and speaking to
13 anything that was decided previously with the
14 other conditions. I'm solely looking at
15 Condition Number 19. However, it is up to the
16 Board now to discuss, and ask additional
17 questions, and make a motion.

18 CHAIRMAN JOHN SIMMERMON: Rachael, so
19 one question I have is, with the petition we
20 could decide the December 2025 with or without
21 the second part of that?

22 RACHAEL CHRISTENSON: Correct. Yeah.
23 You know, so what is -- I guess, the staff
24 recommendation for approval is to extend the
25 deadline to December 31st, 2025 or two years

1 after the issuance of a final non-appeal --
2 appealable order of the court competent -- of
3 competent jurisdiction.

4 So, you know, you guys absolutely can
5 decide what piece of that you want to include in
6 your motion or not. You know, from a staff
7 perspective, there is a lot of -- not that this
8 isn't a valuable process to go through but, you
9 know, if -- maybe consider if you want to sit and
10 go over this again if there is something else
11 that comes up. And that -- I'm not saying that
12 one way is right or wrong, it's just a
13 consideration to make. And that's why that
14 additional condition was put on -- or that
15 additional two years after any litigation may
16 occur. Because that's very likely that that
17 could happen again in this situation. So.

18 CHAIRMAN JOHN SIMMERMON: Any more
19 comments or questions from the Board?

20 VICE CHAIRMAN CURT STEPHENSON: I would
21 like to make a motion that this request be
22 denied. As I stated back in 2019, I still -- I
23 felt then, as I still do today, that there will
24 be impact to the property owners. And this
25 project has the labor with me with respect to the

1 impact it will have. And so, I am opposed to
2 this project then, as I am still today. And the
3 extension that they're being asked for, I cannot
4 agree with it then and I cannot agree with it
5 today. So, I'm sorry. So, my recommendation to
6 the Board would be not to approve this at all.

7 RACHAEL CHRISTENSON: All right. Curt,
8 is that a motion that you're making? Did he make
9 a motion? Okay.

10 BOARD MEMBER CORY BOHLANDER: Second.

11 OFFICE COORDINATOR STACEY HINTON: Who
12 seconded? I'm sorry, I did not hear.

13 RACHAEL CHRISTENSON: Cory.

14 BOARD MEMBER CORY BOHLANDER: I did.

15 OFFICE COORDINATOR STACEY HINTON:

16 Thank you.

17 CHAIRMAN JOHN SIMMERMON: Okay, it's
18 been first and seconded. We'll have a roll call
19 vote?

20 OFFICE COORDINATOR STACEY HINTON: Yes.
21 Cory Bohlander?

22 BOARD MEMBER CORY BOHLANDER: Yes.

23 OFFICE COORDINATOR STACEY HINTON:

24 Jerry Stamm?

25 BOARD MEMBER JERRY STAMM: No.

1 OFFICE COORDINATOR STACEY HINTON: Curt
2 Stephenson?

3 VICE CHAIRMAN CURT STEPHENSON: Yes.

4 OFFICE COORDINATOR STACEY HINTON: John
5 Simmermon?

6 CHAIRMAN JOHN SIMMERMON: Yes.

7 (Applause)

8 RACHAEL CHRISTENSON: And I think that
9 is all the business that we had on the agenda
10 today. So, if there's not anything else that the
11 Board needs to discuss, I think we are done.

12 Hold on, I think we need to officially
13 adjourn the meeting. So, if we can please quiet
14 down.

15 CHAIRMAN JOHN SIMMERMON: Do we have
16 any other miscellaneous, anything else we need to
17 -- before the next meeting -- or to talk about?

18 RACHAEL CHRISTENSON: I don't think we
19 have anything else that we need to talk about
20 before the next meeting. So.

21 CHAIRMAN JOHN SIMMERMON: Is the other
22 petition going to come up the next meeting? The
23 one that we --

24 RACHAEL CHRISTENSON: The appeal?

25 CHAIRMAN JOHN SIMMERMON: The one --

1 yeah. Well, the one that we postponed, that we -
2 -

3 RACHAEL CHRISTENSON: Oh, yeah, the
4 continuance. Yes, that will be heard at the July
5 BZA meeting. Mm hmm.

6 CHAIRMAN JOHN SIMMERMON: Okay. Does
7 anybody else have any comments? Motion to
8 adjourn?

9 VICE CHAIRMAN CURT STEPHENSON: Motion
10 to adjourn.

11 BOARD MEMBER JERRY STAMM: Second.

12 CHAIRMAN JOHN SIMMERMON: So moved.

13 RACHAEL CHRISTENSON: Thank you.

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C E R T I F I C A T I O N

I, Sonya Ledanski Hyde, certify that the
foregoing transcript is a true and accurate
record of the proceedings.

Sonya M. Ledanski Hyde

Veritext Legal Solutions
330 Old Country Road
Suite 300
Mineola, NY 11501

Date: November 30, 2022

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STATE OF INDIANA


INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE COMPLAINT OF LONE)
OAK SOLAR ENERGY LLC AGAINST THE)
BOARD OF COMMISSIONERS AND BOARD OF)
ZONING APPEALS OF MADISON COUNTY,)
INDIANA FOR A DETERMINATION UNDER)
INDIANA CODE §§ 8-1-2-54 THROUGH -67,)
8-1-2-101, 8-1-2-115, AND RELATED STATUTES)
REGARDING THE UNREASONABLENESS OF THE)
DECISION OF THE BOARD OF ZONING APPEALS)
UNDER THE COUNTY’S SOLAR ENERGY) CAUSE NO. 45793
ZONING ORDINANCE)
)
RESPONDENTS: MADISON COUNTY BOARD OF)
ZONING APPEALS AND MADISON COUNTY)
BOARD OF COMMISSIONERS)

LONE OAK SOLAR ENERGY LLC'S NOTICE OF INTENT
NOT TO FILE REBUTTAL TESTIMONY

Complainant, Lone Oak Solar Energy LLC (“Lone Oak”), by the undersigned counsel, hereby notifies the Indiana Utility Regulatory Commission (“IURC”) and Indiana Office of Utility Consumer Counselor (“OUCC”) that Complainant does not intend to file rebuttal testimony in this Cause.

Respectfully submitted,


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Attorneys for Complainant,
Lone Oak Solar Energy LLC

CERTIFICATE OF SERVICE


The undersigned hereby certifies that a copy of the foregoing was delivered electronically this 17th day of February, 2023, to the following:

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STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE
COMPLAINT OF LONE OAK SOLAR
ENERGY LLC AGAINST THE BOARD
OF COMMISSIONERS AND BOARD
OF ZONING APPEALS OF MADISON
COUNTY, INDIANA FOR A
DETERMINATION UNDER INDIANA
CODE §§ 8-1-2-54 THROUGH -67, 8-1-2-
101, 8-1-2-115, AND RELATED
STATUTES REGARDING THE
UNREASONABLENESS OF THE
DECISION OF THE BOARD OF
ZONING APPEALS UNDER THE
COUNTY'S SOLAR ENERGY) ZONING
ORDINANCE RESPONDENTS:
MADISON COUNTY BOARD OF
ZONING APPEALS AND MADISON
COUNTY BOARD OF
COMMISSIONERS

Cause No. 45793

SUBMISSION OF RESPONDENTS' PRE-FILED VERIFIED DIRECT
TESTIMONY OF STACEY HINTON

AND ATTACHMENTS SH-1 THROUGH SH-5

Madison County Board of Zoning Appeals and Madison County Board of
Commissioners ("Respondents"), by counsel, hereby submit the Pre-filed Verified
Direct Testimony of Stacey Hinton.

Dated this 27th day of January, 2023.

Respectfully submitted,

/s/ Kevin D. Koons

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ATTORNEYS FOR MADISON COUNTY BOARD OF
ZONING APPEALS AND MADISON COUNTY BOARD
OF COMMISSIONERS

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on the following on January 27, 2023, by electronic transmission.

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1 **Q1. Please state your name, employer, and position at your employer.**

2 A. My name is Stacey Hinton. I am the Office Administrator and Board
3 Secretary for the Madison County Board of Zoning Appeals ("BZA"). As
4 the Board Secretary, I am the custodian of records for the BZA.

5 **Q2. What is the purpose of your testimony?**

6 A. As the BZA's custodian of records, I am testifying for the sole purpose of
7 authenticating the documents that comprise the BZA record in the
8 underlying BZA case.

9 **Q3. What is the underlying BZA case?**

10 A. The BZA's case number is 2019-SU-005.

11 **Q4. Which documents comprise the BZA record in Case No. 2019-SU-005?**

12 A. The following documents from the BZA record have already been
13 submitted to the Commission in this proceeding:

14 1. Minutes of the Madison County BZA meeting held on June 28, 2022

15 (attached as Exhibit D to the Lone Oak Complaint);

16 2. Staff Report of the Madison County Board of Zoning Appeals, dated

17 May 28, 2019 (attached as Exhibit A to Exhibit C to the Lone Oak

18 Complaint (Order dated May 31, 2019, in Cause No. 37C01-2207-PL-

19 000052));

20 3. Madison County Board of Zoning Appeals Conditions for Adoption of

21 Findings of Fact dated May 28, 2019 (attached as Exhibit B to Exhibit

1 C to the Lone Oak Complaint (Order dated May 31, 2019, in Cause No.
2 37C01-2207-PL-000052));

3 4. Transcript of the Madison County BZA meeting held on June 28, 2022
4 (attached as Attachment HP-1 to Pawelczyk Direct Pre-Filed
5 Testimony)

6 In addition, the following documents complete the BZA record:

7 5. Madison County Board of Zoning Appeals Agenda for June 28, 2022
8 Meeting (attached hereto as Attachment SH-1)

9 6. Denise Spooner Report with Attachments (attached hereto as
10 Attachment SH-2)

11 7. Amended Order to Correct Scrivener's Error (attached hereto as
12 Attachment SH-3)

13 8. Madison County Planning Commission 2019-SU-005 Documents
14 (attached hereto as Attachment SH-4)

15 9. Lone Oak Remonstrations (attached hereto as Attachment SH-5)

16 **Q5. Does this conclude your testimony?**

17 A. Yes it does.

VERIFICATION

I, Stacey Hinton, affirm under penalties for perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief as of the date filed herein.

Date: January 27, 2023



STACEY HINTON

Board Members

John Simmermon, Chairman
Curt Stephenson, Vice Chairman
Jerry Stamm
Cory Bohlander
Lisa Hobbs

AGENDA
MADISON COUNTY
BOARD OF ZONING APPEALS
June 28th, 2022 @ 9:00 a.m.
Madison County Government Bldg.
16 East 9th Street, Anderson, Indiana

Staff Members

Brad Newman, Director
Liz Bruns, Senior Planner
Stacey Hinton, Office Coordinator
Jeff Graham, Attorney

CURRENT BUSINESS

1. Prayer
2. Pledge of Allegiance
3. Roll Call
4. Approval of May 24th, 2022 BZA Board Minutes

New Business

1. Petition: 2022-V-012
Address: 7532 Sprague Street, Anderson
Location: Adams Township, District 1 Commissioner
Petitioner: Fred & Mary Spitz
Landowners: Fred & Mary Spitz
Zoning: CR
Request: A Variance to allow maximum lot coverage to exceed the 30% lot coverage in the Conservation Residential (CR) Zone District
2. Petition: 2022-V-013
Address: 1359 E Zell Road, Summitville
Location: Van Buren, District 3 Commissioner
Petitioner: Terry Delong
Landowners: Terry Delong
Zoning: R2
Request: A Variance for Side Yard Setback Relief in the Sing-Family Residential (R2) Zone District

3. Petition: 2022-SU-009
Address: 2639 North 300 East, Anderson
Location: Lafayette Township, District 3 Commissioner
Petitioner: Kay Lorenzoni
Landowners: Kay Lorenzoni
Zoning: CR
Request: A Special Use to run a grooming business out of her home in the Conservation Residential (CR) Zone District

Old Business

1. Petition: 2019-SU-005
Address: N/A
Location: Multiple locations between West 1150 North and West 1300 North (north to south) and North 350 West and North 550 West (east to west) – please see the Site Plan for precise locations
Petitioner: Lone Oak Solar, LLC, c/o Katya Samoteskul
Land Owners: Multiple Landowners
Zoning: Agriculture (AG)
Request: A Special Use to modify Condition #19 regarding completion and operational date to “The Project shall be complete and operational on or before December 31, 2025”

MISCELLANEOUS

ADJOURNMENT

Petition Number: 19-SU-005
Location: Multiple Locations
Petitioner: Lone Oak Solar Energy, LLC
Zoning District: Agriculture (AG)
Request: Modify condition #19 of Case 2019-SU-005 to replace with "The Project shall be complete and operations on or before December 31, 2025."

STAFF FINDINGS

Project History

Special Use petition 2019-SU-005 was approved by the BZA on September 24, 2019, to provide for the development of a solar farm to be known as Lone Oak Solar. Situated on approximately 1,249 acres in Pipe Creek and Monroe Townships in northern Madison County, the BZA approved the Project subject to nineteen (19) conditions.

Lone Oak Solar Energy LLC, by Mary E. Solada, properly filed, advertised, and notified a request for a modification of Condition #19 regarding petition 2019-SU-005 to provide for the previously approved Lone Oak solar farm to be completed and operational on or before the later of

- i) December 31, 2025 or
- ii) 2 years after issuance of a final non-appealable order of a court of competent jurisdiction affirming the condition modification by the BZA.

Lone Oak Solar Energy LLC has affirmed that the solar farm will otherwise be constructed and operational in compliance with all the other conditions imposed by the BZA approval of 2019-SU-005. Although Condition #19 of 2019-SU-005 stated that the Project was to be completed and operational on or before December 31, 2023, two unique occurrences in the interim have prevented compliance with this condition.

These delays are the result of circumstances beyond the control of Lone Oak Solar Energy LLC. A period of time-consuming litigation caused significant delay beyond the control of Lone Oak Solar Energy LLC. Subsequently, all reviewing courts have found in favor of Lone Oak Solar Energy LLC. A series of time-consuming and unprecedented development-related challenges have occurred, resulting in severe global supply chain challenges beyond the control of Lone Oak Solar Energy LLC. The recent global pandemic, which swept the world shortly after the BZA approval of 2019-SU-005, is hereby recognized as one significant reason for these supply chain challenges and related delay.

STAFF RECOMMENDATION: APPROVE

Taken together, these uncontrollable circumstances support the requested modification of Condition #19 accordingly. Given these circumstances, Staff recommends the modification of Condition #19 to allow the Project to be constructed and operational on or before the later of

- i) December 31, 2025 or
- ii) 2 years after issuance of a final non-appealable order of a court of competent jurisdiction affirming this condition modification, is hereby deemed to be warranted, justified, reasonable, and appropriate.

MODIFICATION OF CONDITION

FINDINGS OF FACT

Petitioner: LONE OAK SOLAR ENERGY LLC
Project Contact: Daniel Goldstein, dgoldstein@invenergy.com, (312) 582-1573;
Mary Solada, msolada@bgdlegal.com, (317) 635-8900.

Request: Modification of Condition #19 regarding previously approved petition 2019-SU-005.

Location: Pipe Creek and Monroe Townships (approximately 1,249 acres).

Special Use petition 2019-SU-005 was approved by the Madison County Board of Zoning Appeals (the “BZA”) on September 24, 2019 to provide for the development of a solar farm to be known as Lone Oak Solar (the “Project”). Situated on approximately 1,249 acres in Pipe Creek and Monroe Townships in northern Madison County, the BZA approved the Project subject to nineteen (19) conditions.

Lone Oak Solar Energy LLC, by Mary E. Solada (Attorney), properly filed, advertised, and notified a request for a modification of Condition #19 regarding petition 2019-SU-005 to provide for the previously approved Lone Oak solar farm to be completed and operational on or before the later of i) December 31, 2025 or ii) 2 years after issuance of a final non-appealable order of a court of competent jurisdiction affirming the condition modification by the BZA.

Lone Oak Solar Energy LLC has affirmed that the solar farm will otherwise be constructed and operational in compliance with all the other conditions imposed by the BZA approval of 2019-SU-005.

Although Condition #19 of 2019-SU-005 stated that the Project was to be completed and operational on or before December 31, 2023, two unique occurrences in the interim have prevented compliance with this condition.

These delays are the result of circumstances beyond the control of Lone Oak Solar Energy LLC.

A period of time-consuming litigation caused significant delay beyond the control of Lone Oak Solar Energy LLC. Subsequently, all reviewing courts have found in favor of Lone Oak Solar Energy LLC.

A series of time-consuming and unprecedented development-related challenges have occurred, resulting in severe global supply chain challenges beyond the control of Lone Oak Solar Energy LLC. The recent global pandemic, which swept the world shortly after the BZA approval of 2019-SU-005, is hereby recognized as one significant reason for these supply chain challenges and related delay.

Taken together, these uncontrollable circumstances support the requested modification of Condition #19 accordingly. Given these circumstances, the modification of Condition #19 to allow the Project to be constructed and operational on or before the later of i) December 31, 2025 or ii) 2

years after issuance of a final non-appealable order of a court of competent jurisdiction affirming this condition modification, is hereby deemed to be warranted, justified, reasonable, and appropriate.

The Lone Oak Solar Energy LLC request for a modification of Condition #19 of 2019-SU-005 is hereby Approved.

Dated: June 28, 2022

Board of Zoning Appeals

Madison County
Government Center
16 E. 9th Street, Box 13
Anderson, IN 46016
Phone: (765) 641-9541
www.madisoncounty.in.gov

Public Meeting Sign-In Sheet

6-28-22

Name	Address
Fred Spitz	7532 Sprague St Nul IN 46013
Kay Lorenzi	2039 N. 300 E Anderson IN 46012
Robert A Lorenzoni	2639 N 700 E.
My Son	2450 Nulst Ave
Bethany Haller	3764 W State Rd 28, Alex, 46001
Katrina Hunter	10040 N 500 W Frankton 46044
Sam Heiser	12696 East 246th Cicero
Denise Spooner	139 W. Oak St. Alexandria
Melissa Rubrecht	10636 N. 400 E, Alexandria, IN 46001
Peggy Roby	4285 E. 1000 N Alex IN
Lee Wells	4955 W 1000 N Frankton, IN 46044
Ken Klein	18413 N 700 E. Elwood
Hannah Parvateczk	1 S Wacker Dr. Chicago, IL 60606

July
FN
46220

Attachment SH-1 to Hinton Direct
Cause No. 45793- Page 7 of 7

OFFICIAL RECEIPT - PLANNING COMMISSION OF MADISON COUNTY

6/17/22

RECEIPT NO. 34500

RECEIVED FROM:

INVENERGY SOLAR DEVELOPMENT

	IMPROVEMENT LOCTN PERMIT	APPL#	-
	LATE CHARGE.....		
	CERTIFICATE OF OCCUPANCY		
	PETITION FOR REZONING...	APPL#	
	PETITION FOR VARIANCE...	APPL#	
	PETITION FOR EXCEPTION..	APPL#	
	PRELIM PLAT APPROVAL....		
	PLAT APPROVAL	PLAT#	
	RE-PLAT	PLAT#	
	FINAL PLAT APPROVAL....		
	ORDINANCE.....		
CASH.....:	MISCELL. & OTHER FEES...		500.00
CHECK#.....: 101728			
MONEY ORDER#:			

TOTAL RECEIVED 500.00

IMPROVEMENT:

LOCATION...:

COMMENTS...: SPEC USE EXTENTION 2019 SU 005

BUILDING COMMISSIONER - BRAD NEWMAN, EXECUTIVE DIRECTOR SJH

Approved by the State Board of Accounts for Madison County, 1994

INTRO:

My name is Denise Spooner. My address is 139 W. Oak St., Alexandria, IN. I am a licensed real estate broker of 14 years in Madison County. I also have specialized education in Property Management and Landlording. I served on the Madison County BZA for the majority of 2020 and was appointed to the Planning Commission in Sept of 2021 by the County Cooperative Extension. I have extensively studied the Indiana Citizens Planner Guide and have continued my education in Land Use and development with various classes and webinars. For the past 3.5 years, I have continued to research, study, and stay educated on Large Scale Solar Farms regarding their approval processes, construction, and impacts on their surroundings.

DISCLAIMER:

I am not an attorney, and nothing I say is to be considered legal advice. I defer to Jeff Graham as the County's Attorney.

Lone Oak's statement, regarding their extension request:

"These circumstances, all completely outside the control of the Applicant, have required the Project to be delayed accordingly. As a result, a modification of Condition #19, to allow the Project to be constructed and operational on or before December 31, 2025, is not only necessary, but also warranted, justified, reasonable, and appropriate."

Definitions of Words:

Warranted ~ deserved, necessary

Justified ~ just, right

Reasonable ~ governed by or being in accordance with reason or sound thinking / being within the bounds of common sense / fair

Appropriate ~ fit, suitable, proper

Page 18 of the Indiana Citizens Planner states that a Board of Zoning Appeals is:

[direct quote] "An administrative board that is quasi-judicial in nature. A quasi-judicial entity operates more like a court than a legislative body and uses many standards and procedures like the courts. BZA decisions are required by state law to be guided by specific criteria, and made based upon the facts, not opinions. The primary role of the BZA is to rule on the application of the existing zoning laws as opposed to passing new laws, and therefore it is considered an administrative body."

So in case you didn't know or need reminding, essentially you are Judges and this is a court. In cases such as this that have generated a lot of controversy whereas "experts" have been called to testify, I would highly suggest that you ask them to swear in, under penalty of perjury, to tell the truth. I do consider myself a highly educated individual in regards to Large Scale Solar Farms and their impacts to health, welfare, safety, and property values. I mostly just cite the education Ive learned from other experts. Regardless, I voluntarily will state that, I, Denise Spooner, do solemnly swear to tell the truth, the whole truth, and nothing but the truth, so help me God.

Secondly, I want to make it clear that I respect and appreciate the position in which you were appointed. This is nothing personal against you. Our attorney has directed us to make the best case we can today. I have never stopped educating and fighting to protect homeowners and farmland. So, should you vote in favor of this extension, the only arguments that can be mentioned on appeal, is what gets said and presented as evidence on the record today. In seeking legal advice, our attorney said to "shoot every arrow I have in my quiver." We know a lot more now than we did back then & I will quickly get through new data and information not known in 2019. All items below will be proven by providing Exhibits of Evidence.

1. We learned in our first court case that if we felt there was a conflict of interest or bias that we needed to point that out and bring it up PRIOR to the vote. We submit EXHIBIT A, the County Council recorded hearing on October 8, 2019 in which Lisa Hobbs gave explanation for her vote in favor of the tax abatement for Lone Oak. {See Exhibit A}

2. *The BZA previously found that the elements for special exception would be met **ONLY IF** certain conditions were imposed. This is what you stated. This is what you ordered in your Findings of Facts. **All the conditions must be met.**

*Now those conditions are not being met.

*Lone Oak now seeks to change a condition.

*This request now reopens the door.

*Would the proposal meet the requirements for special exception with the new requested condition?

*And so we are back to the 4 questions that BZA Members must give answer to with Findings of Facts as stated by law and explained in the Indiana Citizens Planner Guide.

*And by granting changes now, you are stating that you were wrong in 2019.

{See Exhibit B}

It is not justifiable (right, just), reasonable (sound thinking, common sense, fair) or appropriate (fit, proper) to grant changes now and consequently conclude you were wrong in 2019.

3. Lone Oak has provided Exhibit A , ~ their list of names & addresses of Property Owners that they allege to have a lease contract with. We argue that at least one of these parcels has sold rendering some data inaccurate. And they submitted Exhibit B ~ Which contains a few short paragraphs pulled from the lease in question. We make the argument that Lone Oak has not proven that they can in fact, speak for and act on behalf of the owners. Random provisions purportedly to be from the lease are inadequate without the entire lease showing signatures proving that executed & legally binding contracts exist. You cannot cherry pick a few sections out of context. What is above and below these provisions is also important, as well as understanding how other provisions impact and limit these Landowners. Obviously Lone Oak doesn't want anyone to see their leases. I've been a Landlord for 14 years and if I chopped out a couple paragraphs of my lease agreement and presented that before a Judge in an eviction case, I'd be laughed at and my case dismissed.

In addition to not providing legal, binding lease contracts to the BZA, Lone Oak cannot prove that everyone that supposedly signed leases with them wants to continue with this project. Without the original executed leases, and some kind of an amendment being drawn up, signed, and given for an extension of expiration dates from EVERY Landowner, Lone Oak cannot prove their project is still viable and desired by ALL. According to our attorney, this is one of the single most important legal arguments today & we ask Mr. Graham and members of the BZA to demand LEGAL PROOF and stand firm on this issue..

It is not justifiable (right, just) or appropriate (proper), or warranted (deserved, necessary) to grant an extension because Lone Oak has not proven they can act on the behalf of the Landowners or that they ALL still want to participate beyond the expiration of leases.

4. We make the argument that Lone Oak should not use Litigation as an excuse because there was no injunction or stay preventing them from moving forward to build the project. They could have proceeded while the case was being challenged, but chose not to. Lone Oak has presented NO evidence that they can even meet the new deadline that they have proposed. There are no statements from suppliers, orders of equipment showing expected delivery dates of equipment & efforts made to build this solar farm. They haven't attempted to gain drainage approval or try again for a tax abatement.

It is not warranted (deserved, necessary) to grant an extension knowing no courts prevented them from building & they've made NO effort to TRY to move forward.

5. We make the argument that Lone Oak has openly declared that they were delaying the build of the Solar Farm due to the tax abatement. We submit the Herald Bulletin article entitled, "Lone Oak Solar Farm Construction Delayed," where it is quoted Oct. 22, 2019:

“Following the denial of a tax abatement by the Madison County Council this month, an Invenergy official said this week that the company would delay construction. Given the uncertainty around tax abatement, Roanoke has decided to delay the start of construction on the project that was planned for this fall,” project manager Katya Samoteskul wrote in an email. {See Exhibit C}

It is not warranted (deserved, necessary) to grant an extension because they chose to delay the project when they were denied a tax abatement.

6. In September of 2020, it was discovered that Tommy Cleveland, Lone Oak’s Expert who testified in 2019, falsely claimed that the NC Cooperative Extension authored HIS research paper. It is completely UNTRUE and the head of the Cooperative Extension has provided a statement to these facts. And Professor Eckerlin has provided a Statement of what occurred in North Carolina prompting the Solar Industry to silence these Professors at all costs, including providing false statements if necessary. Cleveland is a mechanical engineer, & former student of Prof Eckerlin. He is NOT an Agronomist or Soil Scientist, yet he authored a paper entitled “Balancing Agriculture Productivity with Ground-Based Solar.” Sometime in 2019, AFTER the BZA hearings he submitted a follow up statement to the BZA that contained a false claim. We never received Cleveland’s letter and I didn’t gain the document until I was a BZA member in 2020 and had lengthy conversations with Brad Newman, the former Planning Director. We can only assume that Cleveland thought if he had claimed that the NC Cooperative Extension published his paper, that it would give it more weight and believability in the Agriculture World. I wrote to Mike Carroll, the head of the NC Cooperative Extension and he replied saying that NO, they didn’t author Cleveland’s paper. I knew Cleveland’s statement was false because the NC Cooperative Extension wrote their own research document entitled, “Considerations for Transferring Agricultural Land to Solar Panel Energy Production.” And this document was submitted to the BZA by those who opposed the Solar Farm. Because the truth was, the NC Cooperative Extension and Professors at NCSU were on our side of this debate. Furthermore, Eckerlin’s explanation states that Professor Heiniger met with individuals at NC Clean Tech to ask if anyone had the paper evaluated by the Ag Dept at NCSU. They stated no, to which Prof Heiniger replied, “Then you cannot claim it is a White Paper.” It grieves me that many unknowing farmers and landowners read this document were swayed into thinking it was a legit research paper and relied upon its information to make decisions for their land.

{See Exhibit D}

It is not justifiable (right, just) to grant an extension knowing this new information.

7. After realizing the lack of Agronomists & Soil Scientists being sought to answer questions of how farmland is affected by solar, I began a new direction in my research. I engaged a Solar Salesman & others in the industry to get answers to my questions. One such individual was in Shelby County attempting to gain solar leases and I had an email conversation with him. I asked him for proof that the agricultural lands could 100% be farmed again. He emailed me some articles to which I gave to expert, Professor Ron Heiniger, Agronomist and Soil Scientist from NCSU. This email exchange is a must read for every farmer in the room as he addresses many subjects like Pollinators, Sheep, No Till Farming, the Green Biz, and Farming Under Solar Panels. He concluded his email to me saying,

“As you can see common sense goes out the window whenever solar companies get involved in the conversation. We are turning science on its head. All of these things have no basic scientific merit, just as the idea of free Solar Energy has no scientific merit. Yet, we see so-called researchers quoted in articles that are nothing more than garbage. Best wishes to you! Like our Good God, science is not fooled by these false hoods. These folks will reap what they sow and they are sowing destruction to all they touch.”

I hope that you will read Heiniger’s email response.

8. In June of 2020, Professor Steven Miller did a study of the financial impacts that would occur if 1,890 acres were taken out of farm production for 35 years. He concluded there would be 3 types of impacts: Direct, Indirect, and Reduced Effects that would result in over \$82 million

dollars of loss. Invernergy promised our county \$26 Million in supposed tax revenue. This study was shocking. {See Exhibit E}

9. Rhode Island University Study published a real estate study in September of 2020 that looked at sales affected by solar farms in RI and MA. The study included 208 solar installations, 71,337 housing transactions occurring within one mile (treated group), and 347,921 transactions between one to three miles (control group). The study revealed: "Results suggest that solar installations negatively affect nearby property values. It found, with respect to proximity, substantially larger negative impacts on homes located within 0.1 mile of solar installations (-7.0%, or \$23,682). This confirms the hypothesis that nearby solar installations are a disamenity. **Also, "these results suggest extremely large disamenities for properties in very close proximity."** It is important to note that the largest solar farm in RI is 38.4 MW and only 7.1 MW in Massachusetts. These solar arrays are small, only affecting homes on one side. Home being engulfed on all 4 sides by a 120MW solar farm will definitely be part of the "extremely large disamenities group." One other thing that this study revealed is so shocking:

****Solar installations require over ten times more land area than non-renewable sources to generate the same amount of energy, and the requirement of large tracts of land for their construction has become the largest cause of land use change in the United States (Trainor et al. 2016; Ong et al. 2013).***

Do you know the 3 words that stand out to me the most? Land Use Change. And it is common knowledge, taught, & expounded in Land Use classes that once a "change" happens, it never goes back to its original use. And this has been a question that I have posed to so many. If Solar Farms meet the comprehensive plan to protect farmland, and the Decommissioning Statements in the Findings of Facts states that at the end of the life of the project, the Developer can replace the panels and continue the energy source, then how does it protect farmland when it never gets back to farming activity? I asked Brad Newman this question last year and he stated:

The experts who performed the RI University Study accurately described what is happening to America's farmlands....they are experiencing a Land Use Change at massive speeds. {See Exhibit F}

It is not justifiable (right, just) or appropriate (proper) to grant an extension knowing this new information.

10. In September of 2020, Appraiser Mark Heckman from Pennsylvania released his report on a 75MW solar farm in Gettysburg. He concluded that property values decline up to 20%. He also performed a Viewshed Case Study. In other words, how does a great view affect your property value? "View" was defined as: City, Creek/ Stream, Golf Course, Lake, Mountain, Panoramic, Pasture, Pond, River, Scenic Vista, Trees/ Woods, Valley and Water. The data revealed that a good view would increase value by 10.31% and a negative 15%-20% for degradation of view. One profound statement this appraiser said about homes that are being surrounded on multiple sides was, ***"It reminds me of an era when there were no zoning regulations."*** I couldn't agree more and desire to see educated Zoning Boards mitigate these negative impacts with proper conditions.

In the Findings of Facts {Exhibit B} that the Madison County BZA relied upon to approve Lone Oak stated that, ***"The study prepared by Cohn Reznick, Marous & Company is complete, in line with each reviewed study, and should be adopted if the attached conditions are adopted."***

Mark Heckman was the first appraiser in my research to review the data from Cohn Reznick. He noted, ***"The submitted "Andrew Lines" (name of the Developer's Appraiser) solar property impact study reporting "no impacts" was unacceptable, woefully inadequate data, very deceptive/misleading, fatally flawed analysis, and lacked the transparency required to produce an ethical or credible conclusion."*** Andrew Lines' is co-author of the Cohn Reznick study.

Appraiser Mary McClinton Clay has provided new evidence regarding Cohn Reznick's study as well. She has stated that to obtain Cohn Reznick's data, you must agree to sign a Non-Disclosure statement. Therefore BZA relying upon Cohn Reznick's overview report could never have claimed it was complete because we now know the BZA did NOT have any data whatsoever. However,

Appraisers have gained access to the data through third parties. And once it is reviewed, they come to the same conclusion that it contains errors, flaws, and numerous misrepresentations. In addition to this, CohnReznick failed to disclose that their partner company, CohnReznick Capital provides numerous services for Renewable Energy Companies, including Project Finance, Merger & Acquisition Advisory, Capital Raising, Tax Advisory & Restructuring. Therefore, if CohnReznick makes A LOT of money from Renewable Energy projects, then wouldn't their real estate studies be a conflict of interest?

{See Exhibit H&I}

It is not justifiable (right, just) or appropriate (proper) to grant an extension knowing this new information.

11. In November of 2020, MAI Appraiser Mary McClinton Clay (who is licensed in multiple states including Indiana), reviewed the North Star Solar Farm sales data that Lone Oak's Appraiser, Michael Marous, falsely claimed to the Madison County BZA that there were no property value declines. Clay's study shows that the developer of that solar farm LOST over \$627,000 in revenue when the homes were sold after the project was built. I wish I had the time to read this report in detail to everyone and point out the numerous, mind-blowing mistakes. Appraiser Clay's conclusion stated:

"It is my professional opinion that this report failed to adequately support its conclusion that there was no diminution in value as a result of proximity to the solar facilities as cited. This was compounded by reporting errors, lack of sales analysis, in addition to withheld critical information. It is fundamentally flawed and incomplete on all accounts." {See Exhibit G}

It is not justifiable (right, just) to grant an extension knowing this new information.

12. On June 26, 2022 Appraiser Mary McClinton Clay provided me with a shorter view of the overall summary of her research and then has provided the full 95 Page Report, that lays out all the data, charts, calculations, and explanations of how property values are impacted by SEGPS (Solar Energy Generation Power Systems). It is the most comprehensive collection of impact studies available in the United States. Her primary Practice Focus is Litigation and zoning support with an emphasis on damage studies, including environmental and eminent domain. She has 43 years of experience in Appraisal work! The past few cases that she has been involved in have been voted down as her studies have carried great influence. Recently in Pueblo County, Colorado, the Cohn Reznick company wrote a scathing review of Mary Clays work to which she fiercely defended herself. The Pueblo County citing board voted unanimously against their solar project. Clay's studies are a must read. {See Exhibit J}

It is not justifiable (right, just) or appropriate (proper) to grant an extension knowing this new information.

13. The Indiana Chamber of Commerce President, in a letter to the Editor regarding inflation stated, "The rush to implement green energy policies is also to blame. These initiatives have directed suppliers to go the renewable energy route at the expense of petroleum production. Specifically, this has driven up prices at the pump and for anything related to oil. The Biden Administration has simply tried to go too far too fast with its energy policy." {See Exhibit K }

It is not reasonable (right, just) or warranted (deserved, necessary) to grant an extension until the federal government gets our inflation under control because continuing to push these projects supports more inflation.

14. Professor Eckerlin submitted new information. He stated, "Just this week, Bjorn Lomborg, president of the Copenhagen Consensus and a visiting fellow at Stanford's Hoover Institution, published a paper in the WSJ entitled "The Rich World's Climate Hypocrisy" in which he states unequivocally: "No country in the world has been able to industrialize using renewable energy." {See Exhibit L}

It is not appropriate (proper), justified (just, right), or reasonable to support these projects that weakens our Nation.

In closing, I know I'm very passionate about this and have never stopped seeking education since 2019. I have fought with all my heart to defend what started out as just Northwest Madison County, but then grew to all of our County, all of Indiana, the Midwest, and this Nation that I dearly love. The war in rural communities across this country rages on daily as Renewables take over. I can only trust God to guide you, & give you wisdom & courage to do the right thing for our County. If any of you, or anyone here wants to speak with me privately to discuss these studies, please reach out. I would love to speak with you.
Thank you for the time today.

"The God of Israel spoke, the Rock of Israel said to me: 'When one rules over people in righteousness, when he rules in the fear of God, he is like the light of morning at sunrise on a cloudless morning, like the brightness after rain that brings grass from the earth.'"

2 Samuel 23:3-4 NIV

<https://www.bible.com/111/2sa.23.3-4.niv>

The bias of Lisa Hobbs:

Partial Transcript from Oct. 8, 2019 county council meeting. Entire Recording was emailed to Rachel Christenson.

Approximate time: 7:05-7:10 p.m.

Lisa Hobbs: "I have sit back and listened. I have met with both sides of this, for and against. I actually walked into a barn where I thought I was only meeting with a few and there were 98 of ya. And I almost drove on. I have been at the grocery store, out to eat and approached by people. I have thought about this, thought about this, thought about this and the thing that I cannot get past is I believe you have a right to do what you want with your land. I just do."

"My husband and I have 42 acres, and it would upset me if they come in and told me what to do with my property."

Hobbs seconds Alexander's motion.

Roll call vote: Sumner, no Hobbs, yes Holland, no Reese, yes Heuer, no Alexander, yes. Emery, <-- "I knew you guys were going to do this to me. <laughter> No." <audience erupts into cheers and applause>

Our statement is:

Former Councilwoman Hobbs's motives were revealed in 2019 when tax abatement incentives came up for a vote. Instead of discussing the merits of Invenergy's tax abatement proposal & keeping the subject about tax abatement, Hobbs gave reasoning that is of Zoning nature. Hobbs publicly said she would be upset if told what to do with her own property & people should be able to do what they want. We believe that bias exists since Hobbs takes the position that people should be able to do whatever they want. Hobbs seconded the motion, voted in favor of the tax abatement and her public statements supporting her vote, show Hobbs's inherent bias.

She should file a conflict of interest statement for 2022 and abstain from any & all votes regarding Lone Oak Solar.

Further reasoning for this argument is from attorney, Terry Hall, who represented us in May, 2019:
[Quote]"Zoning ordinances are enacted for the health, safety and welfare of ALL residents, protecting property rights in BOTH directions -the right to enjoy your land, but also, the right of your neighbor to enjoy his or her land. Ordinances are intended to promote a safe, healthy, viable framework for development. Compatible land uses that work in harmony with each other to promote developmental goals increase the value of the community." [End Quote]

We, the people against this project, believe that zoning laws must be enforced to protect the health, welfare, safety, and property values of non-participating land owners and home owners AND these zoning laws should be EQUALLY, FAIRLY, & HONESTLY applied to all. People cannot just do whatever they want with their land because this is exactly why we have zoning laws. We can pause my time if Lisa wants to speak or I can move on and Lisa &/or the board can address this at the time of a vote.

https://www.heraldbulletin.com/news/lone-oak-solar-farm-construction-delayed/article_422dcd9e-f4fd-11e9-944b-83eae4ed87bc.html

TOPICAL

Lone Oak solar farm construction delayed

Ken de la Bastide
The Herald Bulletin

Oct 22, 2019



Invenergy officials explain the proposed Lone Oak Solar Energy Center to area residents in April at Elwood Jr./Sr. High School.

File photo | The Herald Bulletin



ANDERSON — Construction of the Lone Oak Solar Energy Center planned for northern Madison County is being delayed.

Following the denial of a tax abatement by the Madison County Council this month, an Invenergy official said this week that the company would delay construction.

“Given the uncertainty around tax abatement, Lone Oak has decided to delay the start of construction on the project that was planned for this fall,” project manager Katya Samoteskul wrote in an email.

“The project is a good investment for Madison County, and we are hopeful that we can come to an agreement on a tax abatement at some point in the future,” she wrote. “Lone Oak Solar is eager to provide \$24 million in property taxes, \$1 million in economic development payment and to generate 150+ construction jobs and at least two operations jobs for Madison County, and we would like to get to work sooner rather than later.”

The County Council voted to deny the 10-year tax abatement request for the Lone Oak Solar Energy Center.

Invenergy was seeking the tax abatement on the proposed \$110 million project that would generate 120 megawatts of electricity in northern Madison County.

Company officials said the 10-year tax abatement would have saved the company \$5 million in property taxes over the 10 years. Samoteskul said during the council meeting that the tax abatement would have reduced the cost of the electricity to the potential buyer of the power.

She added that Lone Oak Solar Energy Center would be competing with renewable energy resources nationwide to provide electrical power and said that the reduced cost through the tax abatement was necessary.

The Madison County Board of Zoning Appeals voted earlier this year to approve two special exceptions for the development. The BZA in May approved a special use for the Lone Oak Solar Energy Center on 850 acres.

A second special exception was approved on Sept. 24 by the BZA for an additional 350 acres.

Invenergy said the additional acreage was required because of the 500-foot setback from non-participating property lines established by the BZA at the May meeting.

Opponents of the proposed solar energy facility raised concerns about the reduction in property values for surrounding property owners and the loss of prime agricultural ground.

The opponents have filed a lawsuit against the BZA, contending the vote of board member Beth Vansickle should not have been allowed because she is not a resident of the county.

The BZA attorney said before the special use was approved that the courts have generally denied requests to nullify a vote that has already taken place.

Follow **Ken de la Bastide**

on Twitter @KendelaBastide,

or call 765-640-4863.

MORE INFORMATION



[Firm planning to build Lone Oak solar seeks delay](#)

Trending Video

**This is Cleveland's paper he submitted to the Madison County
BZA. Page 4 contains his lie. What else is he lying about???**

**Lone Oak Project:
Expert Testimony on Photovoltaic Facilities and Their Environmental Impacts**

Thomas H. Cleveland

September 19, 2019

Author's Qualifications:

I am an experienced solar engineer with a focus and significant expertise in the local impacts of utility-scale photovoltaic facilities. I have BS and MS degrees in Mechanical Engineering from North Carolina State University (NCSU) and have been a licensed professional engineer in North Carolina since 2007. My engineering career has been focused on solar energy for over 15 years, since before there was any solar industry to speak of. For the first 12+ years of my career I worked at the NC Clean Energy Technology Center at NCSU, and I still teach a solar energy course for undergraduate and graduate students. For the last 2.5 years I have worked at a non-profit engineering consulting company, Advanced Energy, where I work as one of three lead engineers responsible for the interconnection commissioning of all solar facilities connecting to Duke Energy's distribution system in North and South Carolina. This work is essentially the quality control check required by Duke Energy before they allow each solar site to connect to the Duke Energy grid. This commissioning work keeps me up to date with the latest photovoltaic technology and construction practices, and has me visiting a new solar facility nearly once a week. This testimony and any oral statements are made as a private consultant and not as a representative of NCSU or Advanced Energy.

North Carolina has more installed solar than any state other than California, and nearly all those solar panels are in utility-scale solar facilities in rural areas. There are over 400 utility-scale solar facilities in North Carolina, spread across most of North Carolina's 100 counties. As development of these solar facilities began growing quickly in 2012 and 2013 many of the questions from cities, counties, and citizens about the technology and its potential impacts to their communities found their way to me as the lead solar engineer at the solar energy center at the state's land grant university. At that time, I was teaching university courses in solar energy and working on solar energy research and extension projects. I was able to answer some of the questions immediately, but other questions required research, which led to me building a deep expertise on the potential impacts of photovoltaics.

In 2013 I co-lead a large statewide stakeholder process to develop a template solar ordinance for North Carolina, which created a consensus template solar ordinance that has been well received by both the solar development community and by local governments.¹ Many jurisdictions across NC and other states across the southeast and beyond have used this template ordinance to guide their solar ordinance development.

Over the past 6 and a half years I have testified before more than 150 local boards and commissions who had to determine whether a proposed solar facility would materially harm public health or safety, and in not a single one of those cases did the local government make a finding that the proposed solar farm would harm health or safety. This includes several solar facilities well over 1,000 acres in size.

I was the lead author of a public education paper on the health and safety impacts of photovoltaics published by NC State University.² The detailed white paper is based on dozens of published academic research papers, some dating back to the 1980s, interviews with experts around the region and country, and collaboration with colleagues around the university. The paper was peer reviewed before being published. The paper concluded that there is negligible negative public health or safety impacts of utility-scale PV facilities, and pointed out that any risk for negative impacts are far outweighed by the very significant public health benefits due to the

¹ <https://www.planning.org/knowledgebase/resource/7002562/>

² <https://content.ces.ncsu.edu/health-and-safety-impacts-of-solar-photovoltaics>

reduction in burning of natural gas and coal that occurs because of solar electricity production. This paper was submitted to the Board of Zoning Appeals as part of the case file for Lone Oak Solar.

Photovoltaic Facilities and Their Impacts.

Photovoltaic (PV) technology is not new. PV panels (aka modules) have been in the field for well over 40 years, however it is only been much more recently that the cost to manufacture and install them has reduced enough to warrant significant deployment. Costs have come down such that electricity is now cheaper to produce with utility-scale PV than a new fossil fuel or nuclear power plant. Because the technology that has been in the field for over 40 years is the same basic technology as today's equipment, we know that there will be no health or safety surprises decades in the future.

The technology has been thoroughly studied by universities and government agencies like the US Department of Energy and the EPA for decades and is well-understood by the scientific community. Also, the lifespan of the technology is well documented. Solar modules have very few failures and are warrantied industry wide to still produce at least 85% of their nameplate production after 25 years. Many of the latest accelerated testing results are predicting 35-year module life. The inverters that convert DC electricity to grid-synced AC electricity have a shorter lifespan, generally 10 to 20 years with some premature failures, but these components can be replaced with newer, and generally longer-lived, inverters. The rest of the facility, including the panel supports, the wiring, switches, and transformers, all have useful lives of 40 years or more.

The operation of photovoltaic systems does not produce any pollutants. Solar electricity generation is a zero-emissions process that will not adversely impact local groundwater, soil or air quality, nor will it adversely impact local public health in any other ways.

The following concerns about the impacts of utility-scale photovoltaic systems have been raised, so I will address them individually below:

Toxicity – PV panels primarily consist of glass, aluminum, and plastic, none of which are toxic. The remainder is the solar cell and the wiring between cells. The solar cells themselves are nearly 100% silicon, which is quartz sand processed to remove the oxygen. The wiring on the cells and between the cells are primarily copper, aluminum, tin, and silver, but the solder used to connect the tiny wires contains some lead. A shotgun shell has much more lead than a solar module, and the tiny bit of lead in the solar panel is sealed from the environment with plastic sealants and protected with tempered glass and an aluminum frame.

A slightly less common type of solar panel technology, known as cadmium telluride (CdTe), is made by a US company First Solar. This technology is commonly referred to as "thin film" because the solar cells in this type of panel are dramatically thinner than silicon PV cells. The thin film PV material is more than 30 times thinner than a human hair. Cadmium is a toxic heavy metal, but no free cadmium occurs in a CdTe solar panel, only cadmium telluride, which is a stable compound that has less than 1/100th of the toxicity of cadmium. In much the same way that free chlorine is extremely toxic but when combined with sodium it forms sodium chloride, which is table salt. Lay people often latch onto the word cadmium, generating a fear of CdTe PV, but that fear is not supported by science. The scientific community has closely studied this solar technology and considers these panels safe.

Modern silicon and CdTe modules pass the EPA test that is used to determine if a waste produce is hazardous waste, the Toxic Characteristic Leaching Procedure (TCLP) test, which crushes the panel into tiny pieces and mixes them in an acid bath to see what leaches out. This means that these modules are non-hazardous waste and can be disposed of in normal landfills

EMF – Solar-generated electricity produces electromagnetic fields (EMF) that are exactly the same as the EMF produced all electricity on the grid. The solar panels themselves produce DC electricity that produces a weak electric field and a weak stationary magnetic field, resulting in effectively no EMF. The inverters that convert the DC electricity to AC electricity produce some moderate-frequency EMF and some 60-Hz EMF,

but this EMF is strong enough to extend outside of the fenced perimeter of the solar facility, and thus the construction and operation of the solar facility will not increase the EMF exposure of any neighbors.

Fire – There is very little flammable material in a solar facility, so the risk of fire is very limited. The insulation on wiring and the plastic components of the solar panels are the primary flammable materials. Any fire will burn itself out without risk of spreading beyond the solar facility. Every electrical device has some risk of starting a fire, which is why the National Electrical Code was developed as a solution rather than outright bans on electricity in buildings. Any buildings built in this location would be a larger fire hazard than this solar facility.

Glare – It is industry standard to have an anti-reflective coating on the surface of PV panels, which minimizes reflection and maximizes absorption. However, even with this coating the glass front of PV modules becomes moderately reflective when light strikes the panels at a glancing angle. There is some potential for this reflection to cause glare to impact a pilot or driver, but such conditions are rare and can be predicted before construction with solar glare hazard analysis software. Further, this project will utilize a tracking system that always keeps the panels more or less facing the sun such that the sunlight will never strike the panels at a glancing angle, so there will never be a situation that could cause a glare problem.

Electric shock and arc flash – The most significant health or safety risk of solar facilities comes from their electric shock and arc flash hazards, which are no different from the same hazards present with any electricity over 50 volts. These hazards are only a risk to the people working to build and maintain the system. All equipment is required to be UL certified and all installation must follow the National Electrical Code. Proper training and proper tools make a solar facility as safe as any construction site. There is no special risk to neighbors or passersby.

Response to Materials Submitted by Concerned Solar Neighbors, LLC:

Voluminous materials were submitted by Concerned Solar Neighbors in opposition to Lone Oak's permit petition. I reviewed all the documents and carefully read many of them. It is beyond the scope of this letter to address every concern I have with the submitted materials, but there are a few topics I would like to address.

Dr. Eckerlin presented several solar facts and questions about the solar facility development that reveal either a poor understanding of modern solar technology and electric utility operation, or disingenuous statements designed to raise fear and questions in neighbors of potential solar generating facilities. I have known Dr. Eckerlin since he taught my undergraduate solar engineering course at NC State University, and I know that he is a very smart engineer with an excellent understanding of solar hot water technology and passive solar building heating technology. He states that solar facilities only generate electricity for 5-6 hours per day and suggests that they can only produce their full rated capacity (120 kW_{AC}) for one hour a day. This is grossly incorrect and appears to be based on an understanding of the available sunlight while ignoring that all modern utility-scale systems have more solar panel power capacity than inverter capacity, which allows the site to produce its full rated power for several hours most sunny days. When combined with a tracking system that slowly rotates the panels during the day, the systems can produce at or near their full capacity for many hours every sunny day. He is correct that the systems only produce power when the sun shines, and produces less power when it is cloudy, but this is not a surprise to anyone. Electric utilities are very sophisticated and experienced in managing their system to always match electricity generation to demand for electricity, and some fluctuations from clouds passing over solar facilities is an everyday occurrence that is no more difficult to handle than when a factory turns on or off some large equipment. California, Hawaii, and North Carolina all have portions of their grids with high penetrations of photovoltaic systems without causing a decrease in reliability. Additionally, many recent studies show that the US can produce well over 50% of our electricity from a mixture of wind and photovoltaic generation, and many studies agree that this can be done at a lower cost than other generation options.

Dr. Eckerlin also repeats numerous questions a solar lay person asked him about solar energy development over four years ago. The answer to most of these questions are well known, and well documented, to anyone familiar with the solar industry or earnestly seeking answers, yet Dr. Eckerlin continues to repeat them rather

than answer them. For example, "Why don't solar developers purchase the land on which they intend to build a solar farm?". Across the US many solar facilities are built on land owned by the solar developer, but more often than not the owner of the desirable land for the solar facility would rather maintain ownership of the land and collect lease payments for decades than sell the land for a one-time payment. One question that may appear to be hard to answer assumes an incorrect "fact". The question assumes that a PV facility "requires more land per Megawatt(hour) than all other known power generating sources", but this is incorrect. When you consider the land impacts of coal mining, coal electricity generation and photovoltaic electricity generation require approximately the same amount of land per mega-watt-hour (or kWh) produced.

Dr. Heiniger's essay entitled *Solar Farming: Changing the Future of Farming* claims to explain four facts, and I would like to comment on the first fact: "Fact 1. Solar farming will change the future productivity of the land". The essay discusses weed growth and the challenges of battling weeds, but it does not provide any evidence for the stated "fact". Regardless, this essay caused some concerns around the agricultural community of North Carolina and was one factor that led to NC State's Cooperative Extension Service publishing a white paper entitled "Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development".³ I was part of the team that authored this 16-page white paper, which was extensively peer-reviewed and co-published by the NC State University's NC Clean Energy Technology Center and the NC Cooperative Extension Service. The paper has the following introduction to the topic of "Impact on Agricultural Productivity": *This subsection provides an overview of impacts that solar development may have on agricultural land. The discussion of these impacts is divided into the following subtopics: construction grading and soil preservation, compaction, erosion, weed control, toxicity, and pollinators, followed by a brief discussion of decommissioning. The subtopic discussions illustrate that solar development, with proper planning and implementation, results in a small but manageable impact on the future agricultural productivity of the land on which it is sited. Further, these discussions also illustrate that solar development is unlikely to significantly affect the agricultural productivity of neighboring properties now or in the future.*

Based on my experience and these above facts, it is my opinion that the proposed Lone Oak solar generating facility will not be injurious to the public health, safety, morals and general welfare of the community.

³ <https://content.ces.ncsu.edu/balancing-agricultural-productivity-with-ground-based-solar-photovoltaic-pv-development>

Tommy Cleveland's Big Lie (highlighted in yellow):

Dr. Heiniger's essay entitled *Solar Farming: Changing the Future of Farming* claims to explain four facts, and I would like to comment on the first fact: "Fact 1. Solar farming will change the future productivity of the land". The essay discusses weed growth and the challenges of battling weeds, but it does not provide any evidence for the stated "fact". Regardless, this essay caused some concerns around the agricultural community of North Carolina and was one factor that led to NC State's Cooperative Extension Service publishing a white paper entitled "Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development".³ I was part of the team that authored this 16-page white paper, which was extensively peer-reviewed and co-published by the NC State University's NC Clean Energy Technology Center and the NC Cooperative Extension Service. The paper has the following introduction to the topic of "Impact on Agricultural Productivity": *This subsection provides an overview of impacts that solar development may have on agricultural land. The discussion of these impacts is divided into the following subtopics: construction grading and soil preservation, compaction, erosion, weed control, toxicity, and pollinators, followed by a brief discussion of decommissioning. The subtopic discussions illustrate that solar development, with proper planning and implementation, results in a small but manageable impact on the future agricultural productivity of the land on which it is sited. Further, these discussions also illustrate that solar development is unlikely to significantly affect the agricultural productivity of neighboring properties now or in the future.*

NC Cooperative Extension did NOT publish Cleveland's so-called white paper. They published their own entitled, "Considerations For Transferring Agricultural Land To Solar Panel Energy Production," which contained MANY concerns & warnings & was submitted to the Madison County BZA. The truth is that the NC Cooperative Extension was on the side of the community opposing the Solar Farm.

Thomas (Tommy) H. Cleveland, P.E.

4141 Laurel Hills Rd. Raleigh, NC

thcleveland@gmail.com

919-923-5490

Education & Training

North Carolina State University, Mechanical Engineering M.S. 2004

North Carolina State University, Mechanical Engineering B.S., Business Mgmt. minor 2001 - Summa Cum Laude

Lumberton Sr. High School, Lumberton, NC, 1997 – Valedictorian

Professional Engineer (P.E.), licensed in North Carolina (#033711), 2008 - Present

Professional Experience

Solar PV Engineer, Advanced Energy, Raleigh, NC, April 2017–Present

- Evaluation of utility scale solar PV facilities to assess the quality of design, construction, and operation
- Engineering analysis and concise presentation of results to customers
- Failure investigation of commercial PV facility

Solar Energy Engineer (various progressive titles), North Carolina Solar Center/NC Clean Energy Technology Center, North Carolina State University, 2005–April, 2017

- Lead solar engineer at the Center (2008-2017)
- Conducted detailed PV + storage feasibility study for community solar project for a NC municipal utility that included development of battery control model to optimize storage size and validate value production
- Provided quality assurance and technical support to development of in-house training program of solar farm construction for a leading regional utility-scale photovoltaic EPC firm
- Guided design of prototype residential Plug and Play PV system and collected AHJ feedback (Department of Energy SunShot project)
- Co-led stakeholder process to develop Template Solar Development Ordinance for North Carolina
- Led design and development of ISO-17025 accredited solar thermal collector testing lab, only the 5th in U.S.
- Designed and installed PV field performance monitoring system, conducted performance analysis
- Conducted renewable energy site assessments for commercial, industrial, and institutional clients
- Presented to local government officials, community leaders, and general public on solar energy
- Provided technical support to a wide variety of energy consumers and stakeholders across North Carolina

Expert Witness, Private consultant for over 15 solar developer clients, 2012-Present

- Provides expert witness testimony at special/conditional use and re-zoning public hearings regarding the health, safety, and environmental impact of utility-scale solar photovoltaic systems. Experience in NC, SC, VA, and FL (over 60 projects to date)
- Provides respectful clear answers to sometimes ill-informed and/or hostile questions
- Conducted site-specific studies of EMF, sound, and solar glare hazard

Instructor of 1-Day Continuing Education Course on Solar Energy for Professional Engineers, UNC-Charlotte, Fall 2015, 2016, 2017

- Developed all course content for this 8-hour in-person course
- Course provides introduction to solar energy in North Carolina today for working engineering professionals. The course covers solar energy resource, photovoltaic technology, photovoltaic products, system design, state and federal policy, grid interconnection, project economics, and more
- Based on great attendance and student feedback, twice invited back to teach course for additional year

Instructor of ET 220 Solar Photovoltaic Assessment, Department of Forestry and Environmental Resources, North Carolina State University, 2014-Present

- Developed all course content for this new three credit hour online course
- Course covers all aspects of photovoltaic site assessment including energy use, solar resource, system design, utility tariffs, estimating, economics, and more
- Course is optional course for an Environmental Technology and Management degree
- Course is required for a Renewable Energy Assessment minor

Instructor of MAE 421 Design of Solar Energy Systems, Mechanical and Aerospace Engineering Department of North Carolina State University, 2009-2014

- Instructor of the solar energy engineering course, MAE 421, in the NC State University Mechanical and Aerospace Engineering department
- The course was offered during the spring semester and typically had 30 to 50 undergraduate and up to twelve graduate engineering students
- Previously co-instructor of the course for two years (2007, 2009)

Research Assistant, North Carolina Solar Center, North Carolina State University, 2003–2005

- Developed and validated a TRNSYS simulation model of a unique solar thermal concentrating collector
- Assisted with the installation of photovoltaic systems ranging in capacity from 1 kW to 5 kW

Selected Publications

“Balancing Agricultural Productivity with Ground-Based Photovoltaic Development”, NCCETC/NCSU white paper, August 2017, <https://nccleantech.ncsu.edu/wp-content/uploads/Balancing-Ag-and-Solar-final-version-update.pdf>

“Health and Safety Impacts of Photovoltaics”, NCCETC/NCSU white paper, May 2017, https://nccleantech.ncsu.edu/wp-content/uploads/Health-and-Safety-Impacts-of-Solar-Photovoltaics-2017_white-paper-1.pdf

“Community Solar (+ Storage) Program Design for Fayetteville Public Works Commission”, NCSU/NCCETC report, March 2017, (Public version) https://nccleantech.ncsu.edu/wp-content/uploads/FPWC_CommunitySolar_Public_Version.pdf

T. Cleveland, “What is Solar?”, NCSU Cooperative Extension & NCCETC factsheet, October 2016, <https://content.ces.ncsu.edu/what-is-solar>

T. Cleveland, H. Tsai, “Charlotte-Mecklenburg Schools Roadmap to 100% Renewable Electricity” & “Durham Public Schools Roadmap to 100% Renewable Electricity”, NCCETC, February 2016

T. Cleveland, et al, “Template Solar Energy Development Ordinance for North Carolina”, NCCETC & NCSEA, December 2013, www.go.ncsu.edu/template-solar-ordinance

M. Sheehan, T. Cleveland, “Updated Recommendations for Federal Energy Regulatory Commission Small Generator Interconnection Procedures Screens”, Solar America Board for Codes and Standards Study Report, 64 p., July 2010, www.solarabcs.org/about/publications/reports/ferc-screens/pdfs/ABCS-FERC_studyreport.pdf

T. Cleveland, et al, “Optimizing Solar Thermal Resource Use at Commercial Buildings”, Solar 2010 – ASES National Solar Energy Conference 2010, 6 p., May 2010, www.ases.org/papers/101.pdf

T. Cleveland, “Description and Performance of a TRNSYS Model of the Solargenix Tracking Power Roof™”, Solar 2005 – ASES National Solar Energy Conference, 6 p.

T. Cleveland, K. Creamer, & Dr. R. Johnson, “Energy Metering of Solar Domestic Hot Water Systems for Inclusion in Green Power and Renewable Portfolio Standards Programs”, Solar 2004 – ASES National Solar Energy Conference 2004, 6 p.

T. Cleveland, "*Effective Energy Metering of Solar Domestic Hot Water Systems for Inclusion in Green Power and Renewable Portfolio Standards*", Master's Thesis, North Carolina State University, Raleigh, 191 p., April 2004, <http://repository.lib.ncsu.edu/ir/handle/1840.16/1152>

Selected Recent Presentations

T. Cleveland, A. Huang, "Plug and Play Residential PV System Innovation and Demonstration", Solar Power International Conference 2015

T. Cleveland, "*Make Solar Energy Economical*", recorded video lecture for E102: Grand Challenges of Engineering course at NC State University, January 2015

T. Cleveland, M. Clark, "*Template Solar Ordinance for North Carolina*", Solar Power International Conference 2014

Synergistic Activities

- Member of IEEE 1547 Conformity Assessment Committee
- Member of International Code Council (ICC) Renewable Energy Membership Advisory Council (REMAC) (2015-2018)
- Member of the Board of Directors of the Solar Rating and Certification Corporation (SRCC) (2009-2015)
- Solar America Board for Codes and Standards (Solar ABCs) steering committee (2009-2013)
- Member of North Carolina Sustainable Energy Association



tanddrealty <tanddrealty@gmail.com>

R Re-evaluating a former Decision

Herbert Eckerlin <eckerlin1935@gmail.com>

Wed, Jun 22, 11:32 PM

To: tanddrealty . <tanddrealty@gmail.com>

Hi Denise,

As you know, the experts who manage the Grid in the Midwestern part of the US have been sounding the alarm this Spring and are preparing our citizens to expect brownouts and blackouts this summer. This is a consequence of the proliferation of intermittent renewable energy sources (solar and wind) that have been installed in the Midwest in recent years.

We should be paying attention to these folks because they have seen what has been occurring in California and Germany. And, it is now upon us. Three years ago, the BZA approved a new Solar Plant, **not realizing what its consequences might be**. Now, this Solar Developer needs more time to make some needed changes. **But, local conditions have changed**. We now know more. This gives an opportunity to re-evaluate an earlier decision. Do we really want to impose these brownouts and blackouts on our citizens? Do we really want to increase the power costs on our citizens to the level of California (which is double ours) and Germany (which is triple ours).

Just this week, Bjorn Lomborg, president of the Copenhagen Consensus and a visiting fellow at Stanford's Hoover Institution, published a paper in the WSJ entitled "The Rich World's Climate Hypocrisy" (attached) in which he states unequivocally: "No country in the world has been able to industrialize using renewable energy."

We need to take these warnings seriously if we hope to protect the productive lives of our people. No industry can survive if the power goes out when a cloud passes overhead.

If you still question Lomborg, look no further than California and Germany.

Sincerely,

Herb

Dr. Herbert M. Eckerlin, Emeritus Professor
Mechanical & Aerospace Engineering
North Carolina State University
Raleigh, NC 27695

The Rich World's Climate Hypocrisy

They beg for more oil and coal for themselves while telling developing lands to rely on solar and wind.

By Bjorn Lomborg June 20, 2022 11:10 am ET

The developed world's response to the global energy crisis has put its hypocritical attitude toward fossil fuels on display. Wealthy countries admonish developing ones to use renewable energy. Last month the Group of Seven went so far as to announce they would no longer [fund fossil-fuel development abroad](#). Meanwhile, Europe and the U.S. are begging Arab nations to expand oil production. Germany is reopening coal power plants, and Spain and Italy are spending big on African gas production. So many European countries have asked Botswana to mine more coal that the nation will more than double its exports.

The developed world became wealthy through the pervasive use of fossil fuels, which still overwhelmingly power most of its economies. Solar and wind power aren't reliable, simply because there are nights, clouds and still days. Improving battery storage won't help much: There are enough batteries in the world today only to power global average electricity consumption for 75 seconds. Even though the supply is being scaled up rapidly, by 2030 the world's batteries would still cover less than 11 minutes. Every German winter, when solar output is at its minimum, there is near-zero wind energy available for at least five days—or more than 7,000 minutes.

This is why solar panels and wind turbines can't deliver most of the energy for industrializing poor countries. Factories can't stop and start with the wind; steel and fertilizer production are dependent on coal and gas; and most solar and wind power simply can't deliver the power necessary to run the water pumps, tractors, and machines that lift people out of poverty.

That's why fossil fuels still provide more than three-fourths of wealthy countries' energy, while solar and wind deliver less than 3%. An average person in the developed world uses more fossil-fuel-generated energy every day than all the energy used by 23 poor Africans.

Yet the world's rich are trying to choke off funding for new fossil fuels in developing countries. An [estimated 3.5 billion](#) of the world's poorest people have no reliable access to electricity.

Rather than give them access to the tools that have helped rich nations develop, wealthy countries blithely instruct developing nations to skip coal, gas and oil, and go straight to a green nirvana of solar panels and wind turbines.

This promised paradise is a sham built on wishful thinking and green marketing. Consider the experience of Dharnai, an Indian village that Greenpeace in 2014 tried to turn into the country's first solar-powered community.

Greenpeace received glowing global media attention when it declared that Dharnai would refuse "to give into the trap of the fossil fuel industry." But the day the village's solar electricity was turned on, the batteries were drained within hours. One boy remembers being unable to do his homework early in the morning because there wasn't enough power for his family's one lamp.

Villagers were told not to use refrigerators or televisions because they would exhaust the system. They couldn't use cookstoves and had to continue burning wood and dung, which creates air pollution as dangerous for a person's health as smoking [two packs of cigarettes](#) a day, according to the World Health Organization. Across the developing world, [millions die](#) prematurely every year because of this indoor pollution. In August 2014, Greenpeace invited one of the Indian's state's top politicians, who soon after become its chief minister, to admire the organization's handiwork. He was met by a crowd waving signs and chanting that they wanted "real electricity" to replace this "fake electricity."

When Dharnai was finally connected to the main power grid, which is overwhelmingly coal-powered, villagers quickly dropped their solar connections. An academic study found a big reason was that the grid's electricity [cost one-third](#) of what the solar energy did. What's more, it was plentiful enough to actually power such appliances as TV sets and stoves. Today, Dharnai's disused solar-energy system is covered in thick dust, and the project site is a cattle shelter.

To be sure, solar energy has some uses, such as charging a cellphone or powering a light, but it is often expensive and has distinct limits. A [new study](#) in India's most populous state, Uttar Pradesh, found that even hefty subsidies couldn't make solar lamps worth their cost to most people. Even in wealthy nations such as Germany and Spain, most new wind and solar power [wouldn't have been installed](#) if not for subsidies. This is why, for all the rich world's talk of climate activism, developed nations are still on track to continue to rely mostly on

fossil fuels for decades. The International Energy Agency estimates that even if all current climate policies are delivered in full, renewables will [only deliver one-third](#) of U.S. and EU energy in 2050. The developing world isn't blind to this hypocrisy. Nigeria's vice president, Yemi Osinbajo, [articulated the situation elegantly](#): "No country in the world has been able to industrialize using renewable energy," yet Africa is expected to do so "when everybody else in the world knows that we need gas-powered industries for business."

Rather than selfishly block other countries' path to development, wealthy nations should do the sensible thing and invest meaningfully in the innovation needed to make green energy more efficient and cheaper than fossil fuels. That's how you can actually get everyone to switch to renewable alternatives.

Insisting that the world's poor live without plentiful, reliable and affordable energy prioritizes virtue signaling over people's lives.

Mr. Lomborg is president of the Copenhagen Consensus and a visiting fellow at Stanford's Hoover Institution. His latest book is "False Alarm: How Climate Change Panic Costs Us Trillions, Hurts the Poor, and Fails to Fix the Planet."



tanddrealty <tanddrealty@gmail.com>

Questions only an Agronomist should answer

4 messages

tanddrealty <tanddrealty@gmail.com>

Mon, Sep 21, 12:35 PM

To: Ron Heiniger <rheinig@ncsu.edu>, Ron Heiniger <ron_heiniger@ncsu.edu>, Herbert Eckerlin <eckerlin1935@gmail.com>

Bcc: <gigiknebel83@gmail.com>, <craig@edgeswein.com>, <cle3202@aol.com>, <creichart@redgold.com>, <ltwalls91@gmail.com>, <rachbarlow2688@gmail.com>

Dear Professor Heiniger,

I'm sure you are tired and worn from the many pleas of help that you receive concerning large scale solar being placed on prime farmland. The whole battle has taken its toll on my health as well, but I know I cannot quit. I can't express to you how much of a WAR is happening all over rural communities. In SO many courthouses around the Midwest, the people are battling to save home values and protect thousands and thousands of prime farmland.

Recently, I sat down and penned the attached statement. I haven't released it yet publicly, but it helps explain why we need experts in guiding us. Professor Heiniger, you literally are the ONLY Agronomist in the Nation who has taken a stand to present a very different view than what is being sold to county officials and landowners to sign up and support solar on thousands of acres of prime farmland. In all of the studies, reports, papers, & propaganda that is being passed around by Renewable Energy companies, I cannot find one single Agronomist or Soil Scientist that has agreed and supports these projects. Sadly, the landowners signing leases and the county officials passing the projects only see dollar signs and haven't taken the time to look at the credentials, authors, & resources on these "false" materials claiming that the farmland can be easily returned to Agricultural purposes.

Now, ~ the latest and new craze is to support the bees! And that by planting wildflowers and such-related pollinators, that it will help support bees and make maintaining the solar farm easier. When I attended a Henry County Planning meeting to help them draft a solar ordinance, I heard Julie Borgmann speak on

behalf of the Red-Tail Conservancy, *"This could have a big impact of preserving the land under the solar panels and surrounding the farm land. And by planting pollinators, it would only need mowed once a year which would save the electric company money too. The environment can win. The community can win. The solar company can win."*

I find it hard to believe that planting ANY certain item will reduce mowings! And now, these Renewable Energy companies are claiming that planting certain varieties of grasses/pollinators will actually restore and make the soil better! I engaged a Solar salesman on facebook the other day & emailed him some questions. Here is his response to my question on how they truly know the land can be farmed again:

"We anticipate the ground to be better soil and produce a higher yield after the project is over. Some different types of grasses can be grown to enhance the soil and nutrient levels, and solar companies are always trying to do whatever they can to be as good to the earth as possible. That is the backbone of solar, trying to do better for the earth and reduce the carbon footprint. It has also been found that by not tilling or working the land, and no chemicals being sprayed helps let the land gain back some of the nutrients lost by constant tilling. If this project happens I have already pitched the idea of reaching out to Purdue University and getting soil scientists input on how the best way to achieve this would be. We also implement Sheep grazing between panels and the manure helps bring back natural nutrients to the ground. These companies are always looking for the best possible way to make the earth better in building their projects."

I am desperate to answer several questions about native prairie grasses, wildflowers, and pollinators. After reviewing the slide presentation that you sent us for Madison County, I believe that regardless of what gets planted, nature will return to a vegetative accession as grasses give way to broadleaf annuals that leads to woody species. I believe that ALL vegetation, regardless if it is wildflowers or pollinators, will need to be controlled by herbicides. I cannot understand how any of these plants have magical powers to put nutrients back into the ground that were missing because of agricultural practices (i.e. tilling, fertilizers, pesticides, etc.) And don't forget....they have to remove the top soil in order to build the project!! The exact ground that will grow the pollinators will not be the exact same ground when the top soil is supposedly put back! Am I wrong in all of this thinking? The Solar salesman provided these links to prove his statements:

"Here are some articles with studies included that highlight what I was talking

about. Why I am so attracted to solar is this energy sector is still in its infancy, and some of the smartest minds in the US are working on different things to not only generate solar energy, but to also use the land for harvesting crops or grazing etc. They are working day and night to get all they can out of the land. In 5 years we might see the same thing it talks about in an article here, rotating panels that allow a tractor to come in and harvest certain crops that are found to grow better because of the shade and cool aspect in the area under panels. Cool stuff!

<https://www.no-tillfarmer.com/articles/9703-no-till-increases-crop-yields-environmental-gains-over-long-haul>

<https://www.greenbiz.com/article/should-land-be-used-solar-panels-or-agriculture>

<https://www.google.com/amp/s/www.kgw.com/amp/article/news/oregon-state-study-crops-flourish-underneath-solar-panels/283-611967246>

I know that you are very busy, and I am so sorry to ask, but is there anyway that you could please address these new claims and help rural communities all over our Nation understand TRUTH? Professor Eckerlin and myself are in the process of reaching out to Purdue University Agronomists. Before we do, I really want to be able to combat these claims by an expert such as yourself. Hopefully we can get more Agronomists on board to help you. I used to think I was the only real estate professional standing up for property rights, but now many others are coming forth. Professor Eckerlin can tell you the updates about this! I am so excited to not be the lone voice anymore!

Professor Heiniger, ~ thank you for what you have done to help protect farmland! Thank you for standing up for truth and I pray God blesses you for it!

Sincerely,

Denise Spooner,

Real Estate Broker, Farmer's Daughter, and a warrior that wont stop battling this evil.

P.S. ~ I just read that there is an Agronomist at Purdue University that is now studying GenX and PFAS contamination. I would love to inform her about all the toxic covered solar panels coming to our prime farmland! Here is the article:

<https://ag.purdue.edu/stories/purdue-group-prominent-in-studying-chemical-compounds-that-are-everywhere-and-shouldnt-be/?fbclid=IwAR0QKQGhLisD1kmsLcrYrTmzBxgMFh8ewHLJXVmHVDd0p1TRb6AHLv3uqAQ>



tanddrealty <tanddrealty@gmail.com>

Questions only an Agronomist should answer

Ron Heiniger <rheinig@ncsu.edu>

Mon, Sep 28, 9:36 AM

To: tanddrealty <tanddrealty@gmail.com>

Denise:

I am sorry that this has taken its toll on you as it has on my life. I have tried to place this in God's hands and ask HIM the question of what should (can) I do to address this growing problem that I know in my heart will end up hurting the environment and our children's future. I regret that I have not been very helpful in this fight. It is just so hurtful to face the false science and the hateful things that I receive from this supposedly "good" industry. If it was so "good" then why does this industry leave so many broken and hurting communities in its wake? Regardless, let me try and answer your questions.

1. Pollinators: I am very tired of hearing this false and irrelevant statement. "We will plant native flowers and other plants that promote pollinators and they will enhance the return bees." First of all native flowers are already growing in pastures and the use of alfalfa and clovers in fields are all sources of nectar for bees. However, native flowers nor clovers, nor alfalfa, nor any of the native grasses are competitive species. They may persist for one or two years but then are replaced by tall grasses, shrubs, and in areas with more moisture trees and other vegetation. In the prairies of Indiana tall native grasses grew as a result of wildfires that helped control the shrubs and trees and allowed the grasses to become the dominate species. Are they saying they will burn the area under the solar panels every four or five years? I don't think so. These people do not know anything about natural ecosystems and are not willing to find out. They have said that they would plant flowers and native species under panels in North Carolina -- BUT they have not done so! Why? Because they are too hard to maintain!! Without burning or mowing these supposedly native species are overcome by weeds, shrubs, etc. Have Julie Borgmann show you where this has been done and prove that you only mow once a year. This is nonsense! There is NO scientific evidence to support her statement that this will save money nor any evidence that pollinators are increased when solar panels are placed in a field.

2. Sheep. This is also a myth. Yes, you can see pictures of sheep grazing under solar panels. I know these sheep farmers will tell you what a great deal this is so they can sell their services to these solar companies. BUT the only sheep grazing under panels in North Carolina are where they are brought in for a photo opportunity and then within a day or two removed before they cause too much damage to the panels. The city of Portsmouth, VA tried to use sheep to control the vegetation on Craney Island in the James River. (300 acre tract). They thought they could eliminate mowing - or that is what the sheep farmer told them. Two years later they sold the sheep and pronounced the effort a failure. Why? 1) It

took a lot more sheep to control the grasses than anyone thought. 2) Sheep are picky eaters. They don't like weeds or most other vegetation only specific grasses. So, they did NOT control all the vegetation and mowing was still necessary. 3) sheep are hard to maintain. They have to have lots of fresh water, mineral supplements, and they are prone to diseases and predators. Ask yourself how many solar installations do you see with watering facilities for providing fresh water to the sheep? How many have barns and places for the sheep to get out of storms? How many have facilities for the sheep to get mineral supplements? There are no solar installations in North Carolina with this type of support facilities for sheep and there are no sheep being used (other than for photo ops) to graze the vegetation. I can understand ignorance but promoting this when they know they have no intention of using sheep is a LIE!

3. No till farming. This article is correct less disturbance of the soil is better than lots of tillage. So, it would seem that putting the land into solar panels without disturbing the soil is a good thing, right? Well, not so fast. In no till farming these benefits only occur once soil compaction is eliminated. Many no till farmers give up on the practice of no till because they cannot find a way to overcome soil compaction caused by running machinery on the land. The result of compaction is a degradation of the soil because water cannot enter the soil but instead runs off the land. Air pockets in the soil are reduced and without air the soil biome cannot recover. This is the problem with solar installations - soil compaction. The use of frequent mowing in predictable patterns causes soil compaction. This leads to increased water runoff and anaerobic soils. What about under the panels? Here is where the greatest benefit to the soil should be but because the panel shades this area the benefits are reduced. I think in the long term this is one of the better arguments solar developers have but then we would be better with just finding ways to reduce tillage on all our land.

4. The Green Biz article is pure fiction. I know these sheep farmers love the hype but they know this is nothing more than a way to get in the paper and try to sell their wares. Why does the picture show the herd of sheep outside the solar panels? Because the sheep don't want to be there and neither does the solar company want the damage these sheep will cause. This would be laughable if it weren't so tragic.

5. Finally, the last article from Oregon. This is the most tragic of all because it uses the term "researchers". These are quacks. There is no mystery of why grasses grow better under the panels. It has nothing to do with water and everything to do with TEMPERATURE. The temperature under these panels is higher than it is outside the panel shade. Why? Because the panel uses only 20 to 25% of the incoming solar radiation. The rest of the sunlight energy must go somewhere. It goes into heating the panels themselves. These panels in turn radiate that heat energy to the ground underneath the panel. Plants grow according to temperature not time. Therefore, under increased temperatures plants develop quicker and grow more because they need to find sunlight which is limiting under the panels. The taller plants are a result of etiolation (an elongation of the stem caused by lack of sunlight). There is more water because there is less evaporation from the soil due to the shading of the panels. These are all things that these "researchers" should have

understood. In fact, anyone who understands energy balance knows what is happening here. The problem is that under these conditions the plants are not very productive in terms of producing fruit. These plants use up all their energy trying to grow taller and do not have enough to produce seeds, berries, etc. So, growing plants under these panels with the expectation of harvesting berries, melons, etc. is folly. What about the lack of sunlight do these "researchers" not understand? Plants are in the business of converting sunlight into biomass and reproductive structures. Without sunlight (or with less sunlight) plants are less productive.

As you can see common sense goes out the window whenever solar companies get involved in the conversation. We are turning science on its head. All of these things have no basic scientific merit just as the idea of free solar energy has no scientific merit. Yet, we see so called "researchers" quoted in articles that are nothing more than garbage.

Best wishes to you! Like our Good God, science is not fooled by these falsehoods. These folks will reap what they sow and they are sowing destruction to all they touch.

Sincerely,

Ronnie W. Heiniger

Cropping Systems Specialist

North Carolina State University

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NC STATE

[Quoted text hidden]



NEWS: CJ EXCLUSIVES

N.C. State researchers say solar lobby silencing them

Heiniger and Eckerlin removed from government-sponsored forums when they questioned effects of large solar facilities on farmland

Dan Way
in CJ Exclusives

July 25, 2017
4:55AM

Ron Heiniger just wanted to be a farmer. He encouraged research to avoid solar industry encroachment on North Carolina's prime farmlands.

But because of his academic study, the respected crop and soil scientist has become an unwilling poster child for anti-solar activists, vilified by the solar lobby, and chastened by his employer, N.C. State University.

"I've been called crazy. I've been threatened. My job's been threatened. I really don't want to advertise my issue very much anymore," said Heiniger, who works at the Vernon G. James Research and Extension Center in Plymouth.

Left unchecked, Heiniger says, replacing prime farmland with utility-scale solar projects could destabilize a fragile agricultural ecosystem. He warns about soil erosion, leaching contaminants, and ruining soil for future crop growth.

Heiniger and Herb Eckerlin, an N.C. State professor emeritus of the College of Engineering, said they were silenced by the university. Cooperative Extension agents across the state were ordered to cancel popular public forums they had arranged independently to discuss pros and cons of the state's rapid solar growth.

State lawmakers have jumped in, asking university officials if they have stifled viewpoints that don't align with those of the solar lobby.

Local officials, higher education watchdogs, and grass-roots observers question whether N.C. State's North Carolina Clean Energy Technology Center is a tax-supported lobbying arm of the North Carolina Sustainable Energy Association disguised as an academic pursuit.

Heiniger and Eckerlin had been working with county and municipal governments to understand the complexities of proposed large commercial solar projects. They were encouraged to launch a speaking tour for farmers and other interested parties at county Cooperative Extension offices.

"I vetted my materials through people in my department, and I've shared my slides to everybody who's asked for them," Heiniger said. "In the university I've had nobody argue against what my concerns are. In fact, I've had very many people in academics agree 100 percent."

Neither Heiniger nor Eckerlin, who designed the Solar House at N.C. State, founded its Solar Center, and was instrumental in creating the N.C. Sustainable Energy Association, oppose solar energy. They said they were interested in full disclosure about pros and cons so that government officials and North Carolina residents could make informed decisions about the renewable industry.

They were joined by Tommy Cleveland, renewable energy project coordinator at the Clean Energy Technology Center, on a panel at Fayetteville.

While Heiniger was driving to the event, Tom Melton, Cooperative Extension deputy director, called him and directed him to discontinue the series of scheduled forums. It was too late to cancel the Fayetteville session, but Melton eventually kept Cleveland on the panel, while replacing Heiniger and Eckerlin at future events.

"It wasn't an unbiased, educational type meeting. It was a promotional meeting. It was an anti-solar meeting," Melton said. Factually inaccurate information from the meeting was printed in newspapers, he said.

Melton said he invited Eckerlin to lunch and told him if he would stick to facts and omit "the flamboyant comments" he could remain on the panel.

Melton said he continued to be concerned after an event in Halifax that Eckerlin was "ignorant on the subject. He's just Googling things and looking it up."

The university and College of Engineering said Eckerlin was putting them in a bad light, according to Melton. To protect the university's reputation and educational mission, Melton told county Cooperative Extension offices not to allow Eckerlin or Heiniger on their programs.

"It's been a bit of a painful process for me," Melton said. "I've been doing this job for over 30 years, and I've never asked for anyone not to be on a program."

State Reps. Billy Richardson, D-Cumberland, and Jimmy Dixon, R-Duplin, asked university officials to account for the removal of Heiniger and Eckerlin.

"I've only heard one side, and even Solomon listened to both women. But I would be concerned if there was anything untoward about asking them to stand down," Dixon said.

Richardson attended the Fayetteville event. He called it "without a doubt one of the most enlightening, refreshing, and important seminars I ever went to. I would encourage them, if there's some reason they politically pulled that back, to not do that. ... The university's mission should never be to present one side."

Melton said forbidding Heiniger and Eckerlin from taking part in the panel forums resulted largely from complaints by Cooperative Extension agents. Eckerlin said agents were eager to work with them to arrange the meetings.

Other complaints were registered by representatives of the solar industry, and the Clean Energy Technology Center, Melton said.

"The North Carolina Sustainable Energy Association contacted the deans of the College of Agriculture, and told them to shut me down, to stop me from talking to anybody," Heiniger said. "I'm upset that they're using what should be the freedom of academics to push back against me."

"I don't want to embarrass Melton, and I don't want to embarrass the university. But Melton [is] not representing the people of the state. He's representing the solar industry," Eckerlin said.

series: **Carolina Cronyism**

categories: **CJ Exclusives, Energy & Environment, Higher Education, North Carolina, Spending & Taxes, State Government**

tags: **herb eckerlin, n.c. state university, ron heiniger, tom melton**



Frances Spooner <tdspooner94@gmail.com>

Solar Panel Education

7 messages

Frances Spooner <tdspooner94@gmail.com>

Wed, Sep 30, 2020, 2:01 PM

To: Mike Carroll <mike_carroll@ncsu.edu>

Mr. Carroll,

We are landowners in Indiana and have been looking on the internet for information to help guide us on education about solar farming.

Did NC State's Cooperative Extension Service publish a white paper entitled "Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development" ?

Thank you for the clarification and help!

Sincerely,

Frances D. Spooner

Mike Carroll <cmcarro2@ncsu.edu>

Wed, Sep 30, 2020, 3:11 PM

To: Frances Spooner <tdspooner94@gmail.com>

Yes, there is such a paper and it can be found at <https://content.ces.ncsu.edu/balancing-agricultural-productivity-with-ground-based-solar-photovoltaic-pv-development>. However, it is not an NC Extension publication, it is a publication of the N.C. Clean Energy Technology Center at N.C. State University. NC Extension folks did contribute.

Did you read the article I posted at <https://craven.ces.ncsu.edu/considerations-for-transferring-agricultural-land-to-solar-panel-energy-production/>

If I can help, please feel free to ask me questions. Transferring land into solar energy must be considered carefully.

[Quoted text hidden]



Steven Miller, Assistant Professor
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MICHIGAN STATE
UNIVERSITY

Area of Expertise:
Policy Impact Modeling

Degree:
Ph.D, Oklahoma State University
B.A., Oklahoma State University

Fixed-term assistant professor Dr. Steven R. Miller specializes in applied economic methods for forecasting and impact analysis. Dr. Miller is also the Director of the Center for Economic Analysis. As a graduate, Steven maintained and programmed the Oklahoma State University Econometric Forecasting model and served as investigator on several Oklahoma Department of Human Resources studies of TANF funding, and child support studies for impact and needs assessments. He has produced numerous impact assessments of Wichita, Kansas area businesses seeking state and local sponsored incentives, produced papers on aviation demand across competing regional airports, and papers on alternative estimation methods of systems modeling. He is currently working on: [Development of Profitable Michigan-Based Meat and Livestock Value Chains.](#)

Research and Outreach Interests

- Building models for and producing national, state and local economic forecasts
- Impact assessment of industry and policy
- State and local incentives for economic development
- Spatial estimation models
- Bayesian vector autoregression models for forecasting
- Impact assessment of recreation destination

Center for Economic Analysis draws on expertise of the faculty that makes up the [Department of Agricultural, Food, and Resource Economics](#), and the center's objectives include linking research questions to appropriate faculty. The center works with department faculty to push through stakeholder requests for economic analysis & has been successful in pushing projects along a wide swath of topics including public policy, health care, agriculture policy, environmental policy and economic development. Steven's personal area of interest is in projects and programs around economic growth and development, including community- and regional-based entrepreneurship programs.

Authored Documents & Articles:

- Analysis of Healthy Food Incentive Programs' Impact on Farmers Market Vendors in Michigan, December 4, 2017
- Economics of Healthy Food Incentives at Michigan Farmers Markets: Study Highlights, August 8, 2017
- Opportunities and Barriers to Growing Michigan's Local Food System: The Case of Meat Processing, August 8, 2017
- Regulatory Routes to Purchasing Michigan Meat, July 13, 2017
- Developing Michigan Meat Processing, Part 1: Processing and Regulation, June 29, 2017
- Michigan Meat Processing Capacity Assessment Final Report, September 26, 2016
- Trey Malone: Travels of the Pilsner in the Michigan Economy, March 28, 2019

Projects:

- Development and Optimization of Solid-Set Canopy Delivery Systems For Resource-Efficient, Ecological
- Effect of Cover Crops on Nitrous Oxide Emissions, Nitrogen Availability and Carbon Accumulation in O
- IR-4 Field Research [2014]
- Minor Crop Pest Management Program - Interregional Research Project No. 4
- Translational Genomics in Cucumber-Tool Development & App. for Recessive Disease Resistance A
- Trunk Injection: A Discriminating Delivery System for Tree Fruit IPM [2013 - 2015]

Articles Featuring:

- Del Monte's Quest to Change How Americans Feel About Canned Produce, February 10, 2020
- What's craft beer worth to the state of Michigan?, May 15, 2019
- What's on tap? Michigan's economy, May 7, 2019
- Trey Malone: Travels of the Pilsner in the Michigan Economy, March 28, 2019
- Craft Beer as a Means of Economic Development: An Economic Impact Analysis of the Michigan Value Chain, February 26, 2019
- Economic Forecast Provides Critical Information for Michigan Stakeholders., December 21, 2018

Lone Oak Solar Installation Estimated Economic Impacts of Reduced Agricultural Production

The Lone Oak Solar project is for the installation of solar photovoltaic (PV) electric generating facility in Northwestern Madison County, IN, encompassing the townships of Monroe and Pipe Creek. This is a 120-megawatt (MW) PV deployment on approximately 850 acres of least lands. Up to 13 disjointed installation sites in proximity will be used spanning a total of 1,890 acres.

This brief economics assessment is a partial analysis, limited to measuring only the value of subverted agricultural production following the installation and operation of the Lone Oak Solar project. As such, this analysis is not to be taken as an economic impact assessment of the Lone Oak Solar project but rather that of the loss of existing agricultural uses of the 1,890 acres of leased lands that will be diverted to PV operations. We assert that the PV panels have a life of 35 years, which is consistent with the expected life of commercial panel installations that range from 30 to 35 years. At the end of the project's life, the panels will be partially or fully replaced with the most up-to-date PV systems, or the PV fixtures will be removed with cost. Who bears that cost of transitioning back to agricultural uses depends on the nature of the land-lease agreements. In this study, such end-of-life expected costs are not included in the analysis.¹

We used typical crop rotations for Madison County and commodity expenditure and revenue profiles developed at Purdue to estimate the economic direct effects of forgone agricultural production. Accordingly, the crop rotation modeled was corn-corn-soy beans, indicating that corn is grown on two out of three years, while soybeans are grown one of every three years. This rotation and associated crop production budgets were selected to be representative of the crop production activities currently practiced on crop-producing acreage to be diverted. Other major crops also appear on the USDA CropScape tool for Madison County, including winter wheat, wheat/soy bean double crop, alfalfa/hay and tomatoes, though their absolute numbers, in terms of acres planted, sum to less than 10 percent of production agricultural land in Madison County.²

Hence, we estimate that the direct annual loss of agricultural output and associated economic measures are:³

- **1,890 acres taken out of agricultural crop production and placed in PV-electricity production**
- **\$1,038,051 in gross farm revenues (cash sales of farms)**
- **\$363,321 in farm net revenues (Farm revenues to proprietor, farm capital and farm land)**
- **\$75,600 in farm labor earnings (excluding proprietor earnings)**

Over 35 years of operation, this represents a decline in (2020 \$ values held constant):

- **\$36,331,800 in gross farm revenues**
- **\$12,716,200 in farm net revenues**
- **\$2,646,000 in farm labor earnings**

¹ See Heiniger, R.W. 2017. *Cost of Reclaiming Land Currently Used for Solar Panels Back to Farmland*. Department of Crop and Soil Science, North Carolina State University, Plymouth, NC.

² See https://www.nass.usda.gov/Research_and_Science/Cropland/sarsfaqs2.php

³ Estimates provided by the Center for Economic Analysis at Michigan State University under the directorship of Steven R. Miller. For more information contact Steven Miller at 517.355.2153 or by email at mill1707@msu.edu.

Lone Oak Solar Installation Estimated Economic Impacts of Reduced Agricultural Production

We simulated how the loss in annual farm sales translates to economy-wide impacts on Madison County, IN. Economy-wide impacts are larger than direct impacts because dollars recirculate throughout the economy. For example, the sales revenues earned by the grower are partially re-spent in the local economy to purchase seed inputs to the next year’s harvest, to purchase fuel, maintain or expand capital like tractors and enclosures, etc. Those receiving payments from the farmers will also re-spend a share to restock on inventories, pay labor, taxes and operating expenses. Households increase their expenditures from labor and proprietary income, creating a second channel of impacts. Together, the business to business transactions and household to business transactions that occur locally make up what we call secondary expenditures (indirect and induced effects, respectively). The cycle continues, decreased only to the extent that purchases are made to suppliers from outside of Madison County. The table below shows estimates using annual estimated economy-wide decreases associated with decreased agricultural activities described above.

Impact Type	Employment	Labor Income	Regional Income	Output
Direct Effect	1.8	\$163,511	\$505,412	\$1,038,051
Indirect Effect	2.0	\$41,566	\$324,011	\$665,476
Induced Effect	1.5	\$35,756	\$301,368	\$641,210
Total Effect	5.3	\$240,833	\$1,130,791	\$2,344,737

Model simulation: Lost Farm Sales Impacts on Madison County, IN

Direct loss of agriculture sales of \$1,038,051 will create a decrease in total transactions in Madison County, totaling \$2.34 million per year. This would result in a reduction of regional income of just over \$1.13 million per year.⁴ Total labor income will be expected to decline by \$240,833 per year, impacting just over five local workers.⁵

These estimates only take into account of expected impacts tied to reduced agricultural activities as currently exercised on these farms and do not take into consideration employment by Lone Oak Solar in maintaining and operating the solar panel installation. It also does not take into consideration the expected impacts of any annual payments made on behalf of Lone Oak Solar for personal property taxes, income taxes and land lease payments. Finally, the estimates do not take into account any substituted economic activity that may be applied to these lands in the presence of the solar panel installation.

⁴ Regional income is the combined labor income, proprietor’s income, payments to capital and landowners and indirect business taxes.

⁵ Employment may include self-employed proprietors.

labor Costs	10%					
acres	1890	Per acre	Corn	Soy	Corn	Three-yr
Buffer	0%	Prices	\$3.40	\$8.35	\$3.40	
	1890	Yields	176	54	176	
		Gross Revenues	\$598	\$451	\$598	\$549
		Variable Costs	\$418	\$235	\$418	\$357
		Labor Costs	\$45	\$30	\$45	\$40
		Gross variable Costs	\$463	\$265	\$463	\$397
		Per acres contrib. to margins	\$135	\$186	\$135	\$152
		Sales	\$1,130,976	\$852,201	\$1,130,976	\$1,038,100
		Net Rev	\$340,956	\$408,051	\$340,956	\$363,300
		Labor Pay	\$85,050	\$56,700	\$85,050	\$75,600
		Proprietor Income plus capital	\$255,906	\$351,351	\$255,906	\$287,700
		Life (yrs)		35		
		Gross revenues	\$36,331,800			
		Lost farm revenue	\$12,716,200			
		Lost labor pay	\$2,646,000			

Model simulation

Impact Type	Employment	Labor Income	Regional Income	Output
Direct Effect	1.8	\$163,511	\$505,412	\$1,038,051
Indirect Effect	2.0	\$41,566	\$324,011	\$665,476
Induced Effect	1.5	\$35,756	\$301,368	\$641,210
Total Effect	5.3	\$240,833	\$1,130,791	\$2,344,737

KEY FINDINGS OF THE RHODE ISLAND UNIVERSITY STUDY

A study documenting the effect of solar development in Rhode Island and Massachusetts was published in September 2020. "The purpose of this paper is to quantify the externalities associated with proximity to utility-scale solar installations using hedonic valuation." This study used "a difference-in-difference (DID) identification strategy, which compares changes in housing prices after construction for nearby properties with those further away." The study included 208 solar installations, 71,337 housing transactions occurring within one mile (treated group), and 347,921 transactions between one to three miles (control group).

The study's "results suggest that solar installations negatively affect nearby property values. Property values in the treatment group decline on average 1.7% (or \$5,671) relative to the control group." The study also found, with respect to proximity, substantially larger negative impacts on homes located within 0.1 mile of solar installations (-7.0%, or \$23,682). This confirms the hypothesis that nearby solar installations are a disamenity. Also, "**these results suggest extremely large disamenities for properties in very close proximity.**"

This study, which is based on hundreds of thousands of transactions, **unequivocally has determined that SEGPSs (Solar Energy Generation Power Systems) negatively affect nearby property values**, contrary to the claims of solar developers that they have no negative impact.

It is notable, that the conclusions represent an average of all the 208 sites, with both large and small installations, of which some may or may not have a negative affect upon the utility of the nearby property. If the utility of the property is not diminished, or if the expectations of the market are not impacted by the solar facility, then no diminution should be expected. This average includes such properties. For example, this would include modestly priced houses with small lots in large subdivisions opposite a 5MW or smaller solar facility where the owner would not have expectations of a view nor would the utility of their homes be impacted by the solar installation.

This is also mentioned in the study:

*Solar installations require over ten times more land area than non-renewable sources to generate the same amount of energy, and the requirement of large tracts of land for their construction has become the largest cause of land use change in the United States (Trainor et al. 2016; Ong et al. 2013). Source of this quote: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0162269>

To access the full real estate study: <https://web.uri.edu/coopext/files/PropertyValueImpactsOfSolar.pdf>



PROPERTY VALUE IMPACTS OF COMMERCIAL-SCALE SOLAR ENERGY IN MASSACHUSETTS AND RHODE ISLAND

Vasundhara Gaur and Corey Lang
Department of Environmental and Natural Resource Economics
University of Rhode Island

September 29, 2020



ABSTRACT

While utility-scale solar energy is important for reducing dependence on fossil fuels, solar arrays use significant amounts of land (about 5 acres per MW of capacity), and may create local land use disamenities. This paper seeks to quantify the externalities from nearby solar arrays using the hedonic method. We study the states of Massachusetts and Rhode Island, which have high population densities and ambitious renewable energy goals. We observe over 400,000 transactions within three miles of a solar site. Using a difference-in-differences, repeat sales identification strategy, results suggest that houses within one mile depreciate 1.7% following construction of a solar array, which translates into an annual willingness to pay of \$279. Additional results indicate that the negative externalities are primarily driven by solar developments on farm and forest lands in non-rural areas. For these states, our findings indicate that the global benefits of solar energy in terms of abated carbon emissions are outweighed by the local disamenities.

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1 INTRODUCTION

Solar energy in the United States has grown at an average rate of 49% per year since 2009, making the US the second largest producer of solar energy in the world (EIA International Energy Outlook 2019). In 2019, solar energy accounted for 40% of all new capacity additions in the country, the largest ever in its history, and exceeding all other energy sources (Perea et al., 2020). By June 2020, the cumulative installed capacity of solar in the United States reached 81.4 gigawatts (GW), which is enough to power 15.7 million homes (Perea et al., 2020). Solar is predicted to overtake wind to become the largest source of renewable energy in the US by 2050, accounting for 46% of all energy produced from renewable sources (EIA Annual Energy Outlook 2018).

While there is a broad support for renewable energy in the United States (Bates & Firestone, 2015; Farhar, 1994; Firestone et al., 2018; Hoen et al., 2019; Krohn & Damborg, 1999), and for solar energy in particular (Carlisle et al., 2014, 2015; Farhar, 1994; Greenberg, 2009; Jacobe, 2013; Pew Research Center, 2019), the development of large-scale solar installations has not been obstacle free. One major hurdle to overcome before construction begins is the siting process. Solar installations require over ten times more land area than non-renewable sources to generate the same amount of energy, and the requirement of large tracts of land for their construction has become the largest cause of land use change in the United States (Trainor et al. 2016; Ong et al. 2013). Recently, the siting of large solar projects has become contentious in some parts of the country due to concerns about visual disamenities, impacts on ecosystems, siting of transmission lines, loss of a town's rural character, water pollution, fire risk, water use, and reduction in property values (Farhar et al., 2010; Gross, 2020; Lovich & Ennen, 2011). The debate is especially heated when solar development is proposed on existing farm and forest lands, which is common because these are the cheapest locations for development (Kuffner, 2018; Naylor, 2019).

The purpose of this paper is to quantify the externalities associated with proximity to utility-scale solar installations using hedonic valuation. Theory indicates that property values will reflect people's willingness to pay to avoid the cumulative disamenities of solar development (Bishop et al., 2019; Rosen, 1974). Our study focuses on the states of Massachusetts (MA) and Rhode Island (RI), which are ideal for two reasons. First, both states have recently experienced a sudden boom in the development of large-scale solar installations. This trend has been driven by

the Renewable Portfolio Standards (RPS), regulations that require increased energy production from renewable energy sources, which have been adopted by both states. MA's RPS calls for 25% of electricity generated by renewable sources by 2030 and RI's RPS calls for 38.5% by 2035. Second, both states have high population density, ranked 2nd and 3rd among U.S. states. This level of development means that most solar sites are proximate to residential areas, which yields many observed transactions for precise estimates.

We analyze the impact of utility-scale solar installations sized 1 MW and above on nearby property prices in MA and RI.¹ We use a difference-in-differences (DID) identification strategy, which compares changes in housing prices after construction for nearby properties with those further away. We empirically estimate the spatial extent of treatment to be one mile from the solar installation and choose a cutoff for control properties of three miles. Our primary sample consists of 208 solar installations, 71,337 housing transactions occurring within one mile (treated group), and 347,921 transactions between one to three miles (control group).

Across a variety of specifications, our results suggest that solar installations negatively affect nearby property values. Our preferred specification, which includes property fixed effects (i.e., repeat sales), month-year fixed effects, and county-year fixed effects, indicates that property values in the treatment group decline 1.7% (or \$5,751) relative to the control group, and this estimate is statistically different from zero at the 1% level. These findings suggest that solar arrays create local, negative externalities, and the average household annual willingness to pay to avoid these externalities is \$279. This helps explain local concerns and opposition and gives pause to current practices of not including proximate residents in siting decisions or compensating them after siting has occurred. While we cannot estimate producer and consumer surplus, we can compare external benefits and costs. Our estimates imply that the global positive external benefits of carbon mitigation are outweighed by local externalities costs at a ratio of 0.46. However, renewable energy in New England usually displaces natural gas use by power plants. Solar in more rural places (thus affecting fewer households) and solar that displaces coal would have a more favorable benefit-cost ratio.

We also examine heterogeneity in treatment effects in several ways. First, with respect to proximity, we find substantially larger negative impacts on homes located within 0.1 mile of

¹ Following the U.S. Energy Information Administration (EIA), we define large-scale solar installations as those with an installed capacity of 1 MW or larger.

solar installations (-7.0%). Second, we estimate a series of models exploring heterogeneity based on prior land use (farm or forest vs. landfills or industrial areas) and rural character of a municipality (defined based on population density). The results suggest that the overall negative effects of solar arrays on nearby property values are driven by farm and forest sites in non-rural areas (non-rural is most akin to suburban, as there are very few solar sites in urban areas). Solar developments on landfills and industrial areas or in rural areas have smaller and statistically insignificant effects on prices. We posit that solar arrays on farm and forest lands cause greater externalities, given the dual loss of open space amenities and gain of industrial disamenities, and that this effect hinges on the scarcity of open space typical in non-rural areas.

2 CONCEPTUAL FRAMEWORK

Environmental goods and services are often ‘non-market goods’, meaning they are not traded in any market. However, that does not mean that they have no value. Using economic theory, we can estimate environmental values by examining people’s decisions and how they make choices and tradeoffs regarding such goods.

One way of valuing environmental goods and services is through the revealed preference method where the preferences of individuals are inferred through their actual buying and selling decisions in a related market. For example, air quality is not transacted in any market, but people ‘reveal’ their value for it when they buy homes away from urban and industrial areas with high traffic volumes and poor air quality. In this example, air quality is the non-market good, the ‘actual buying and selling decision’ is the choice of purchasing a house with specific characteristics, and the ‘related market’ is the housing market.

A common application of the revealed preference method is the hedonic housing price technique. First theorized by Rosen (1974), the hedonic price model (HPM) measures the implicit price of each attribute of a bundled good. Applied to the housing market, the idea is that the price of a property can be broken down into the price of its various attributes. These attributes can be structural (e.g. lot size, living area, number of bedrooms and bathrooms, presence of air conditioning or pool, etc.), neighborhood (e.g. school quality, proximity to shopping, etc.), and environmental (e.g. air and groundwater quality, tree cover, proximity to brownfield, etc.). More formally, let us consider a house i , and let P_i denote its price, S_i the set of structural characteristics, N_i the neighborhood characteristics, and E_i the environmental

characteristics of that house. Then the hedonic price function of the house can be represented mathematically as a function of its characteristics:

$$P_i = f(S_i, N_i, E_i) \quad (1)$$

When purchasing a house, the consumers make tradeoffs between their desired quantities of each of these attributes and price. Further, in equilibrium, prices adjust to reflect willingness to pay for the bundled attributes. By examining transacted properties with sales price and attributes, the implicit value of each attribute can be estimated. In the context of solar development, the value that people place on solar arrays can be estimated by examining transactions in close proximity to solar arrays compared to those further away.

The HPM is a well-established and frequently used tool for measuring nonmarket values. It has been used extensively in the literature for estimating the willingness to pay for environmental amenities like air quality (Bajari et al., 2012; Bayer et al., 2009; Bento et al., 2014; Chay and Greenstone, 2005; Grainger, 2012; Lang, 2015; Ridker and Henning, 1967) and open space (Anderson and West, 2006; Black, 2018; Geoghegan et al., 1997; Irwin, 2002; Lang, 2018), and also environmental disamenities like brownfields (Haninger et al., 2017; Lang and Cavanagh, 2018; L. Ma, 2019) and electrical transmission lines (Hamilton and Schwann, 1995). Several hedonic studies also estimate the public's valuation of non-renewable energy sources and infrastructure, particularly coal plants (Davis, 2011), nuclear energy (Gawande and Jenkins-Smith, 2001; Tanaka and Zabel, 2018), petroleum storage (Zabel and Guignet, 2012), and hydraulic fracturing (Boslett et al., 2016, 2019; Gopalakrishnan and Klaiber, 2014; Muehlenbachs et al., 2015).

The HPM produces intuitive and policy relevant results. For example, Haninger et al. (2017) analyze federal brownfield remediation and find that properties in close proximity to EPA-funded remediated brownfields appreciate 5-11% following cleanup, and that in aggregate this valuation exceeds the costs of remediation and hence the federal program passes a benefit-cost test. Lang (2018) examines municipal land conservation spending in the United States, and estimates that properties on average appreciate 0.68–1.12% for every \$1000 per household of open space spending authorized. The positive appreciation implies that the valuation of open space amenities exceeds the costs of additional taxes, and further that land conservation is underprovided. Muehlenbachs et al. 2015 analyze hydraulic fracturing (“fracking”) in Pennsylvania and find that properties within 1km of a well pad decline in value 16.5%, but only

when the properties use well water, public water supply houses are unaffected. These results suggest that perception of risk is focused on contaminated drinking water.

The HPM has become increasingly popular for the valuation of renewable energy in recent years, with the most frequent applications focusing on wind energy. Within the United States, studies that use data with large numbers of observations close to turbines find no significant impact on property prices. Hedonic studies that find no negative externalities from onshore wind energy development include Hoen et al. (2011) for 24 wind facilities across the United States; Lang et al. (2014) for 10 wind turbine sites in Rhode Island; Hoen et al. (2015) for 67 wind facilities (with over 45,000 turbines) installed all over the United States through 2011, and Hoen and Atkinson-Palombo (2016) for 41 turbines in densely populated areas of Massachusetts. In contrast, studies in European countries find that wind turbines have a significantly negative impact on nearby properties, though the magnitude of the effect differs by region (Dröes & Koster, 2016; Gibbons, 2015; Sunak & Madlener, 2016). Vyn (2018) finds the Canadian experience to be heterogeneous and dependent on community acceptance. More recently, hedonic methods have focused on estimating externalities from offshore wind turbines. While this literature is still in its infancy, early studies indicate no negative impacts to property values in the vicinity of offshore wind turbines (Jensen et al., 2018) and positive impacts to tourism (Carr-Harris & Lang, 2019).

Hedonic valuation has also been applied to residential rooftop solar. General consensus is that houses installed with rooftop photovoltaic (PV) panels sell for a premium, though there is regional variation in the size of the effect: 3.5% in California (Dastrup et al., 2012; Hoen et al., 2012), 5.4% in Hawaii (Wee, 2016), 17% in Arizona (Qiu et al. 2017), and 3.2% in Western Australia (Ma et al. 2016). However, this literature is only tangentially related as it is about quantifying internalities (valuation of personal financial benefits), not externalities, and has nothing to do with land use.

In sum, there exists little information on the externalities associated with large-scale solar installations within the United States. It is therefore necessary to understand the value people place on solar structures in order to help state and municipal policy makers implement policies and decisions that reflect public preferences.

3 DATA

To implement the hedonic analysis, we build a composite dataset that integrates: 1) the data on the location and attributes of all solar developments in MA and RI, and 2) the data on attributes and locations of residential properties in MA and RI.

3.1 Solar data

The dataset on solar installations is obtained from the Energy Information Administration's (EIA's) report EIA-860M, or the Monthly Update to the Annual Electric Generator Report. The EIA-860M contains data on the total capacity of electric generation facilities in the United States that have a capacity of 1 MW and above, their point location (latitude and longitude), and the month and year that generation begins. Figure 1 represents a map of 284 solar installations constructed prior to August 2019, which is when we set the cutoff for being in our sample. The installations are well dispersed across all regions in both states, which increases confidence that estimates will not be affected by unobserved regional differences. We exclude 76 solar installations (27% of all installations) that are built within 1 mile of each other, since property value impacts may be hard to measure for observations in the proximity of multiple installations.² This is similar to a sample cut made by Haninger et al. (2017).

Figure 2 graphs new and cumulative solar capacity by year. The first installation came online in December 2010. New capacity displays a continuous upward trend through 2014. There is a sharp fall in 2015, after which the trend rises again and peaks in 2017, before falling again in 2018. As of August 2019, the cumulative solar capacity in RI and MA is 817 MW. Capacity factors for this region are about 16.5% (EIA 2019), which means these solar installations are collectively producing 1180 GWh of electricity per year, which is enough to power 157,681 homes.

One limitation of our data is that we do not have shapefiles representing the exact footprint of the solar installations, thus we must approximate that using Geographic Information Systems (GIS) software. Solar installations require approximately 5 acres of land per MW of capacity (Denholm & Margolis, 2008; Ong et al., 2013). We assume that the point location is the

² Figure A1 in the online appendix represents a map of the resultant 208 solar installations.

centroid of the installation and then create a circle around it with an area equal to 5 times the capacity (in MW) of each array.³

We hypothesize that prior land use may affect property value impacts. Specifically, houses in proximity to farms and forests that are developed into solar may depreciate more than houses in proximity to a brownfield or capped landfill that is developed into solar.⁴ Since farms, forests, and other open space are amenities and boost home values (Irwin, 2002; Lang, 2018), conversion of these types of lands may lead to larger price decreases because it is the combination of a loss of amenities and the gain of disamenities. To infer prior land use, we overlay the estimated circular footprints on 2005 land use data obtained from Massachusetts Bureau of Geographic Information and 2011 land use data obtained from Rhode Island Geographic Information System for the respective states. We then assign each installation a prior land use: 'greenfield' if it was formerly either a farm or forest land, and 'non-greenfield' if it was either a commercial site or a landfill.⁵ 63% of installations and 70% of capacity is classified as greenfield (see Figure A2 in the online appendix).

3.2 Property data

We use ZTRAX housing transaction data from Zillow (<http://www.zillow.com/data>), which include information on property location (latitude and longitude), sales price, date of transaction, and many property characteristics (lot size, square feet of living area, number of bedrooms, number of bathrooms, year built, number of fireplaces, central air-conditioning, and

³ We manually crosscheck the EIA data with Google Maps, and correct the latitude and longitude when they do not correspond to the centroid of the array. We recognize that this approach could lead some properties to be misclassified as treatment or control, inducing a small amount of measurement error in treatment status. As a result, our DID estimates may be slightly attenuated.

⁴ Solar developers prefer farm and forest lands because they have substantially lower construction costs compared to alternative sites like brownfields, landfills, superfunds and industrial lands.

⁵ Several solar installations cover an area with multiple land uses. We obtain exactly one land use type per solar site in five additional steps. First, we classify the land use as 'landfill' if the installations have the term 'landfill' in their name, or if they are listed in the EPA's dataset of contaminated land. Second, we use a stratifying logic to group all land-use types under seven major categories: commercial, farm, forest, landfill, recreational, residential, and wetland. Third, we place 'transportation', 'urban public/institutional', 'industrial', 'powerline/utility', and 'junkyard' under commercial; 'orchard', 'cropland', 'pasture', 'nursery', and 'cranberry bog' under farm; 'spectator recreation', and 'participation recreation' under recreation, 'multi-family residential', 'low density residential', 'medium density residential', 'very low density residential', and 'high density residential' under residential; and 'forested wetland', 'water', and 'non-forested wetland' under wetland. Fourth, we rank all land use categories under each installation by area, such that the land use with the greatest area gets the highest rank. We drop all land use categories but the ones with the highest rank to obtain exactly one land use per installation in the following four major categories: commercial, farm, forest, and landfill.

swimming pool). The data include 2,095,835 property transactions from January 2005 to June 2019 in the states of RI and MA. Houses with missing observations for sales price, bedrooms, full bathrooms, and half bathrooms are dropped. We also drop groups of single-family residential properties with the same latitudes and longitudes, but different addresses. Sales prices are adjusted to 2019 levels using the Northeast regional housing Consumer Price Index from Bureau of Labor Statistics. After dropping transactions with prices of \$100 or less, since these are clearly not arms-length transactions, we drop transactions in the bottom and top 5% of the sales price distribution to get rid of outliers. Further, we drop observations that have more than four stories, six bedrooms, five full bathrooms, or three half bathrooms. Houses that underwent major reconstruction are dropped since they may have different attributes in previous transactions. We exclude homes that sell before they were built, as there is evidence these are lot sales without improved property. We also drop single-family residential properties with lot sizes larger than 10 acres, since large plots could be potential sites for solar development and price impacts of nearby solar could be completely different. Condominiums are assigned a lot size value of zero acres and are identified with an indicator variable. The subjective condition of properties is defined by a dummy variable equal to 1 indicating above average condition.

Similar to prior land use, we hypothesize that existing development in areas surrounding solar arrays may impact property prices. Many rural areas pride themselves on their rural character and residents seek out that type of bucolic setting. Hence, construction of solar installations could be seen as an industrialization of the landscape and may cause larger negative impacts on property values. We proxy for rural character with municipality-level population density, which comes from the 2010 Census. We define an indicator variable *Rural*, which equals one if the town has a population density of 850 people per square mile or fewer. We chose this cutoff because 850 is the average population density of MA, which forms the bulk of the observations in our dataset, and, at this cutoff, almost a third of the properties and 60% of the solar installations are classified as rural, which we believe are reasonable proportions. However, we examine different cutoffs in the appendix. It is important to note non-rural properties should not be thought of as urban, but more suburban. Very few utility-scale solar developments are built in urban areas as there is just not space.

To build our main dataset, we spatially merge the solar data with the property dataset. We match every property to the nearest eventual site of solar development to infer proximity. We

only include transactions occurring within three miles of any eventual solar installation to increase similarities in observable and unobservable characteristics for sample properties. For properties lying within three miles of two installations, we keep only those that transacted before both installations were built and those that transacted after both were constructed. This ensures cleaner identification of the pre-construction and post-construction periods in our model.

The final, composite dataset includes 419,258 property transactions representing 284,364 unique properties around 208 solar installations. Figure 3 shows the number of transactions by distance to nearest solar installation. We have roughly 18,000 transactions within half a mile, and 71,337 transactions within one mile of a solar installation. This is far more compared to many prior studies measuring externalities of wind energy, and it enables precise estimation of any effect that may be present. Further, 27.43% of transactions occur post-construction and 17.27% of the post-construction observations are within one mile.⁶

4 METHODS

We use the difference-in-differences (DID) method in the hedonic framework to analyze the causal impact of solar installations on housing prices. We compare treated properties located near large-scale solar installations to similar control properties that are further away from such installations. The treated properties are defined as those that lie within some distance d of a solar site, and control properties are greater than distance d (and less than three miles). Our basic empirical specification is:

$$P_{it} = \beta_1 Treated_i + \beta_2 Post_{it} + \beta_3 (Treated_i \times Post_{it}) + \gamma X_{it} + \epsilon_{it} \quad (2)$$

Where P_{it} is the log sales price of house i at time t . $Treated_i$ is a dummy variable equal to 1 if a house is in the treatment group and 0 otherwise, $Post_{it}$ is an indicator for post-treatment, which equals 1 if a house sells after the construction of the nearest solar installation, X_{it} is a vector of housing variables (bedrooms, bathrooms, etc.), as well as census block fixed effects and month-year fixed effects. Month-year fixed effects capture macroeconomic trends that affect the entire region that could be correlated with solar development trends. Block fixed effects account for location-specific unobservable heterogeneity that could be correlated with solar development. Lastly, ϵ_{it} is the error term. β_1 is the pre-treatment price difference between treated and control

⁶ Figure A3 in the online appendix presents the number of post-construction transactions by distance bin.

houses, and β_2 is the price difference between control properties, before and after treatment. The coefficient of interest is β_3 , which is the differential price change from before to after solar development for treated properties relative to control properties.

In addition, we also estimate repeat sales models that include property fixed effects:

$$P_{it} = \beta_2 Post_{it} + \beta_3 (Treated_i \times Post_{it}) + \gamma X_{it} + \alpha_i + \epsilon_{it} \quad (3)$$

This model uses only within-property variation to identify β_3 , and thus controls for time-invariant unobservables at the property level. In this specification, X_{it} only includes temporal fixed effects, as other housing variables are time-invariant. In addition to this specification, we also estimate a model that adds county-year fixed effects, which allows for different county-specific trends in the housing market. Across all specifications, our preferred model includes property, month-year, and county-year fixed effects, as it best controls for unobservable determinants of price and most flexibly controls for regional price trends, both of which could be correlated with solar development. In all models, we cluster standard errors at the census tract level to allow for correlated errors within a larger area.

Since the extent of treatment is unknown, we first seek to empirically identify d , the distance up to which the effects of constructing a solar installation persist, and this will define the boundary for our treatment group. Following similar strategies as Davis (2011), Muehlenbachs et al. (2015), and Boslett et al. (2019), we estimate a series of DID models similar to our preferred specification, except with treatment defined by successive tenth-mile increments and control always being 2-3 miles. Figure 4 plots the estimates for each tenth-mile increment ranging from zero to two miles; each point and confidence interval represents a separate regression. Results indicate large, negative impacts for houses within 0.1 mile, but with large standard errors. Point estimates bounce around some, but more or less show effects diminishing with distance as expected. Beyond one mile, all estimates are statistically insignificant. Given this evidence, in all future specifications, we define the treatment group to be within one mile and the control group to be 1-3 miles.

We extend the analysis to investigate heterogeneity in treatment effect in multiple ways. First, we estimate a model that allows for heterogeneity in the impact based on distance. We identified treatment extending to one mile with Figure 4, but Figure 4 also suggests that treatment effects could be substantially larger within 0.1 mile. To explore this possibility more formally, we develop a model that defines multiple distance bands. The first (outermost) band

represents control properties located two to three miles away from the nearest solar installation (per usual). The second (outer-middle) band includes treated properties located 1 – 2 miles from the nearest solar installation. The third (middle) band includes treated properties located 0.5 – 1 mile from the nearest solar installation. The fourth (inner-middle) band includes treated properties located 0.1 – 0.5 miles from the nearest solar installation. Finally, the fifth (innermost) band consists of treated properties within a distance of 0.1 mile from the closest installation. Our specification is:

$$P_{it} = \beta_2 Post_{it} + \sum_{k=2}^5 \beta_3^k (dist_i^k \times Post_{it}) + \gamma X_{it} + \alpha_i + \epsilon_{it} \quad (4)$$

where $dist_i^k$ is a dummy variable equal to 1 if a property i lies within the k^{th} distance band. P_{it} , $Post_{it}$, X_{it} , and α_i are as defined in Equation 3. Our coefficients of interest are β_3^k , which are the differential changes in property prices from before to after the construction of solar installations, for homes in distance band k , compared to changes in property values of control houses (lying in distance band 1).

Second, we investigate heterogeneity in treatment effect by two more characteristics: prior land use and rural character. This is done by a triple difference analysis in which we interact the treatment effect term in Equation 3 with a variable for our characteristic of interest. The specifications are as follow:

$$P_{it} = \beta_2 Post_{it} + \beta_3 (Treated_i \times Post_{it}) + \beta_4 (Post_{it} \times Greenfield_i) + \beta_5 (Treated_i \times Post_{it} \times Greenfield_i) + \gamma X_{it} + \alpha_i + \epsilon_{it} \quad (5)$$

$$P_{it} = \beta_2 Post_{it} + \beta_3 (Treated_i \times Post_{it}) + \beta_4 (Post_{it} \times Rural_i) + \beta_5 (Treated_i \times Post_{it} \times Rural_i) + \gamma X_{it} + \alpha_i + \epsilon_{it} \quad (6)$$

where $Greenfield_i$ is an indicator variable equal to 1 if a property is located within the vicinity of a solar installation that was built on land that was formerly a farm or forest, and $Rural_i$ is an indicator variable equal to 1 if property i lies in a town with a population density of 850 people per square mile or fewer.

Our coefficients of interest in Equations 5 and 6 are β_3 and β_5 . β_5 is interpreted as the difference in price impacts for greenfields relative to non-greenfield sites (Eq. 5) and the difference in price impacts for homes in rural areas relative to non-rural ones (Eq. 6). In Equation 5, we expect β_5 to be negative. We hypothesize that developments on farm and forest lands will lead to larger negative impacts on housing prices due to the more dramatic change in landscape

compared to a commercial site or landfill and the loss of open space amenities. We also expect a negative sign on β_5 in Equation 6, reflecting a loss in the rural character of a town due to the construction of solar installations.

Intuition would suggest a positive correlation between *Greenfield* and *Rural*, which indeed plays out in the data. To try to separate the effects and test for multiplicative effects, we estimate a quadruple difference model that includes both *Greenfield* and *Rural* fully interacted with *Treated* and *Post*.

4.1 Summary statistics and assumptions

Having defined treatment and control, we now evaluate the comparability of those groups. The summary statistics for key variables are given in Table I. The first column represents the mean values of our full sample. The mean sales price is \$338,320. The average property in our data has a lot size of half an acre, has living area of just under 3000 square feet, approximately 3 bedrooms, and is about 49 years old. About 21% of the properties are condominiums, 45% are located within 3 miles of a greenfield development, and 34% are rural.

The second and third columns in Table 1 compare pre-treatment housing attribute means between the 0 – 1 miles (treated) and 1 – 3 miles (control) observations to examine similarity between the treatment and control groups. In the last column, we report the normalized differences in means, which is the difference in means between the treatment and control groups divided by the square root of the sum of their variances. None of the covariates have a normalized difference exceeding 0.25, which is the limit beyond which the difference in means becomes substantial.

The critical assumption for the DID design to yield causal estimates is the parallel trends assumption, which requires that the treatment and control properties have the same trend in outcomes if treatment did not occur. A common way of assessing the plausibility of this assumption is to examine pre-treatment trends in sales prices for the treatment and control groups. In Figure 5 we plot pre-treatment average sales prices of treatment and control groups up to 2010, which is the year in which the first solar installations were constructed. The price trends are similar for both groups, thus boosting our confidence that the assumption holds, and the control group serves as a good counterfactual.

5 RESULTS

5.1 Main results

We present our main results in Table 2. Column 1 results are obtained from estimating Equation 2, which includes housing covariates (described in detail in the notes of the table), census block fixed effects, and month-year fixed effects. Columns 2 and 3 are results obtained from estimating repeat sales models described by Equation 3. Both columns include month-year fixed effects, and Column 3 additionally includes county-year fixed effects. The coefficient on *Treated* is insignificant in Column 1 suggesting that, controlling for housing characteristics and spatial and temporal fixed effects, treated properties are not statistically significantly different from control properties pre-construction. The DID coefficient of interest ranges between -0.016 to -0.026 and is statistically significantly different from zero across all models. Our preferred specification is Column 3 which includes property, month-year, and county-year fixed effects. This model indicates that on average, houses lying within one mile of solar installations sell for 1.7% less post construction relative to properties further away, all else equal. This finding confirms our hypothesis that nearby solar installations are a disamenity.

We convert the percentage reduction to dollars by multiplying the coefficient and the average property price for treated properties prior to construction (\$327,700), which equals \$5,571. Assuming capitalization can be converted to a welfare measure in this context (see Kuminoff & Pope, 2014), we can then translate this price discount into an annual willingness to pay for avoiding proximity to solar. Assuming a 5% interest rate, average annual willingness to pay is \$279 per household.

There are no other property value studies of solar arrays for us to compare our estimates to. To date, Botelho et al. (2017) is the only study to examine the negative externalities from large-scale solar facilities. Using a contingent valuation framework, they find that local residents in Portugal are willing to accept \$12.93 – \$56.64 per month on average as compensation for being in the vicinity of solar installations. While their methods are different and vicinity is defined differently, their results are consistent with ours (\$25.17/month). In addition, Botelho et al. conduct a discrete choice experiment to delve into aspects of siting that drive the disamenity and estimate that respondents are willing to pay \$8.65, \$7.57, and \$5.15 per month to avoid negative impacts on flora and fauna, landscape, and glare effects, respectively. Second, we extend the hedonic valuation literature on renewable energy to include large-scale solar.

First, we provide the first estimates of the non-market valuation of large-scale solar installation externalities in the United States.

5.2 Robustness checks

In Table 3 we present results from a series of robustness checks to ensure that the results from our preferred model are consistent to alternative data samples. In Column 1 we drop all observations with sales prices in the top and bottom 1% of the distribution (as opposed to 5% in the main sample) to assess whether the results are robust to including more high and low value properties. In Column 2 we restrict the sample to include only properties with a lot size of 5 acres or lesser, decreasing the maximum from 10 acres in our main sample. While it is unlikely that a solar array would be sited on a parcel of 5 – 10 acres, it is possible and so these properties may appreciate based on expectations of possible lease payments. Column 3 excludes all condominiums from the sample. Column 4 includes all 284 solar installations from our full sample, which means properties could be exposed to multiple treatments. Columns 5 and 6 explore different amounts of land required per MW of installed capacity, 4 acres in Column 5, and 6 acres in Column 6. By contracting and expanding the assumed size of installations, the set of properties that are designated as treatment control is altered. Across all columns, our coefficient of interest is statistically significant and the magnitude ranges between -0.014 to -0.017. In sum, we find that our results are robust across all specifications.

5.3 Heterogeneity in treatment effect

In Table 4, we examine the heterogeneity in treatment effect by three characteristics: proximity to solar installations, prior land use, and rural character of towns. Each panel represents a different regression and all panels include property fixed effects, month-year fixed effects, and county-year fixed effects.

In Panel A, we estimate the model described by Equation 4 that allows for heterogeneity in the impact on prices based on distance. The coefficient on the 1 – 2 miles band is statistically insignificant, which is congruent with our assumption that treatment effects do not persist beyond 1 mile. The coefficients on the 0.1 – 0.5 miles and 0.5 – 1 mile bands are significant and similar magnitude to the main results. The coefficient on the 0 – 0.1 mile band is -0.070, which is 4 times larger in magnitude than the 0.1 – 0.5 miles and 0.5 – 1 mile bands, though only

significant at the 10% level. This suggests that property prices for homes lying within 0.1 mile from a solar installation fall by 7.0% (\$23,682) post-construction, compared to houses further away. These results suggest extremely large disamenities for properties in very close proximity.

In Panel B, we provide estimates from the model described by Equation 5 where we explore heterogeneity by prior land use. The triple-interaction coefficient of interest is negative as expected, and implies that farm and forest lands that are developed into solar arrays decrease property values 0.8% more than brownfields and industrial areas. However, this coefficient is statistically insignificant, meaning the differential impact is imprecise and could even be zero.

In Panel C, we examine heterogeneity by rural character of towns and report the coefficients from the specification defined in Equation 6. The coefficient on *Treated* × *Post* is larger in magnitude (-0.024) than the main results. The coefficient on *Treated* × *Post* × *Rural* is essentially the same magnitude as the coefficient on *Treated* × *Post*, but the opposite sign. Taken together, these results suggest that the treatment effect in rural areas is effectively zero (a statistically insignificant 0.1%), and that the negative externalities of solar arrays are only occurring in non-rural areas. These findings go against our intuition. One possibility is that land is abundant in rural areas, so the development of some land into solar does little to impact scarcity, whereas in non-rural areas it makes a noticeable impact. A second possibility is that there are unobserved visibility differences across sites. If visibility is a key driver of negative impacts and installations in rural locations are less visible on average (due to land abundance for vegetative buffers), then this could produce the results observed.

In Panel D we further explore heterogeneity by land use and rural character. This is done by estimating a quadruple difference model that interacts the treatment effect term in Equation 2 with both the *Greenfield* and *Rural* indicator variables.⁷ The coefficient on *Treated* × *Post*, which represents the effect of non-greenfield solar arrays in non-rural areas is -0.014, which is slightly smaller than the overall average effect observed in Table 2, but is also imprecisely estimated. The coefficient on *Treated* × *Post* × *Greenfield*, which applies to greenfield sites in non-rural areas, is -0.036 and is statistically significant. This suggests a large additional effect of greenfield sites in non-rural areas relative to non-greenfield sites, and a total effect of -5.0%.

⁷ Tables A2-A4 in the online appendix examine the robustness of the results presented in Table 4, including different regression specifications and different population density cutoff values that define *Rural*. The results are broadly consistent with the findings presented.

The coefficient on *Treated × Post × Rural*, which applies to non-greenfield sites in rural areas, is 0.002 and is statistically insignificant. This suggests no statistical difference between the property value effect of non-greenfield sites in rural versus non-rural areas. Lastly, the coefficient on *Treated × Post × Greenfield × Rural*, which applies to greenfield sites in rural areas, is 0.056 and is statistically significant. This indicates a counter-effect to the negatives seen for *Treated × Post* and *Treated × Post × Greenfield*, and the total effect for greenfield sites in rural areas is a positive 0.008. The total effect is statistically indistinguishable from zero. Taken together, the results of Panel D suggest that the overall negative effects of solar arrays on nearby property values are driven by greenfield sites in non-rural areas. Similar developments on farm and forest lands in rural areas have no impact on nearby properties. These findings are consistent with the ideas that greenfield developments cause greater externalities, given the dual loss of open space amenities and gain of industrial disamenities, but that effect hinges on the scarcity of open space.

In the online appendix, we also present results that test for heterogeneity by size of installation and time since construction (see Tables A5 and A6). In both cases we find no evidence of differential property value impacts by size and by time.

6 CONCLUSION

This paper estimates the valuation of externalities associated with nearby utility-scale solar installations using revealed preferences from the property market. Using the DID empirical technique, we estimate regression models with treatment and control groups defined by distance to the nearest solar installation. We observe 71,337 housing transactions occurring within one mile (treated group), and 347,921 transactions between one to three miles (control group) of 208 solar installations in MA and RI.

Our preferred model suggests that property values in the treatment group decline by 1.7% (\$5,751) on average compared to those in the control group after the construction of a nearby solar installation, all else equal. This translates to an annual willingness to pay of \$279 per household to avoid disamenities associated with proximity to the installations. However, this average effect obscures heterogeneity. We find substantially larger negative effects for properties within 0.1 miles and properties surrounding solar sites built on farm and forest lands in non-rural areas.

While a full cost-benefit analysis of solar arrays is beyond the scope of this paper, because we do not know anything about consumer and producer surplus, we can still compare the negative local externalities to the global benefits of carbon mitigation to gain a more holistic understanding of local opposition.⁸ We therefore conduct the following back-of-the-envelope calculations. On the cost side, we first consider the point estimate from our preferred specification which translates to a loss of \$5,751 per household for treated homes close to solar installations. Our complete sample (prior to any data cuts) consists of 289,254 unique properties located within 1 mile of all solar installations in the dataset. Put together, we estimate a net loss of \$1.66 billion in aggregate housing value due to proximate solar installations in MA and RI.

To quantify the benefits from solar installations, we first calculate net generation from solar installations. Assuming a capacity factor of 16.5%, the 817 MW of installed solar capacity in MA and RI generates is 1,180,892 MWh (megawatt hours) of electricity per year.⁹ Current non-renewable generation in MA and RI comes almost entirely from natural gas. According to the EIA, 0.42 mt (metric tons) of CO₂ are emitted from each MWh of electricity that is generated from natural gas, implying that a total of 495,975 mt of CO₂ are abated annually from solar energy generation. Assuming that an average solar installation lasts 30 years, we estimate 14.88 million mt of CO₂ are abated in their entire life-span. The EPA (Environmental Protection Agency) estimates a social cost of \$51.80 per metric ton of CO₂, which translates to \$771 million in lifetime benefits from the production of energy from solar installations (US EPA). We find that, considering only externalities, the benefit-cost ratio is 0.46, with a net loss of \$893 million.

However, we caution against generalizing the benefit-cost findings to other regions in the United States for two main reasons. First, over 90% of the energy generated in MA and RI comes from natural gas, which emits only half as much CO₂ as coal. It is possible for benefits to outweigh the costs in states where coal dominates the fuel mix for electricity generation. Second, MA and RI are the 3rd and the 2nd most densely populated states in the country, respectively, which makes the siting of solar installations away from residential areas a herculean task. Careful siting of installations in states that have large tracts of open land available and around sparsely populated regions may allow for more favorable cost-benefit ratios.

⁸ To be sure, significant amounts of money are part of the market transactions. A developer quoted us that they offer landowners \$15-20,000 per MW per year of installed capacity. It is unknown how much is profit and whether some portion of that could be used to compensate proximate households.

⁹ *Net generation (MWh) = % Capacityfactor × 365 days × 24 hours × Installed capacity (MW)*

The demographic and geographical differences across states have implications for their respective RPS goals. For densely populated New England states with ambitious RPS targets, wind energy may be the better choice. Onshore wind turbines require a fraction of the land area per MW of installed capacity compared to solar, while offshore turbines require none. Furthermore, unlike solar installations, wind turbines in the United States (both onshore and offshore), have been found to have no disamenities associated with their proximity (Carr-Harris & Lang, 2019; Hoen et al., 2011, 2015; Hoen & Atkinson-Palombo, 2016; Lang et al., 2014). Moving forward, states should customize plans to meet renewable energy targets that work best with their respective geographies.

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Figures and Tables

Figure 1: Map of solar installations across Massachusetts and Rhode Island

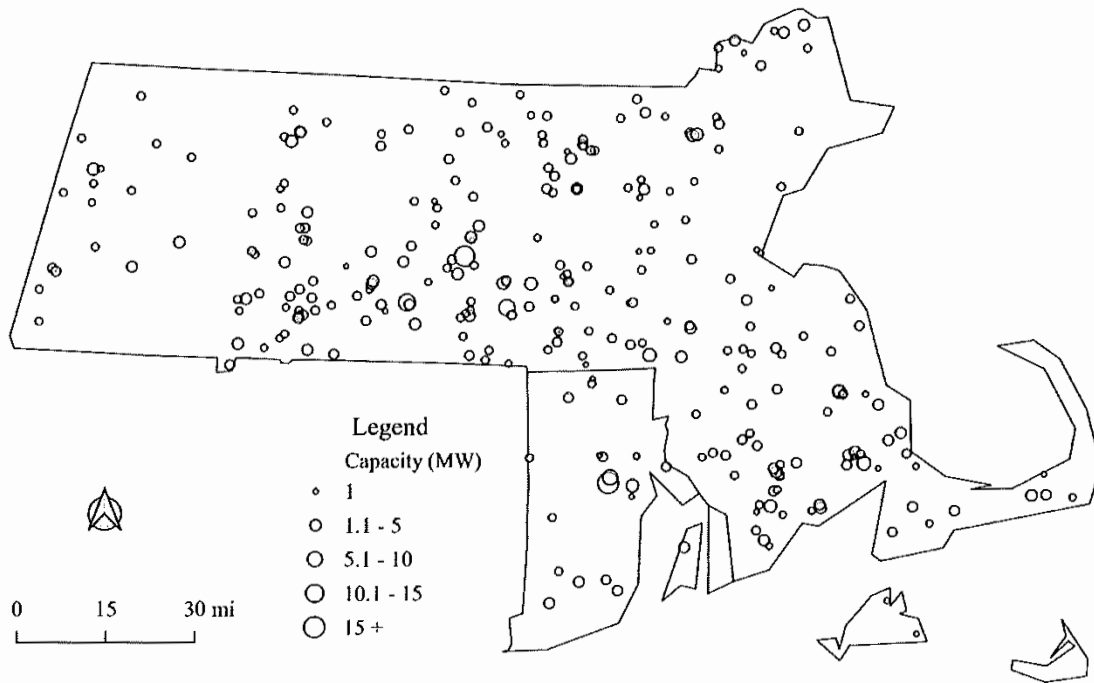


Figure 2: New and cumulative utility-scale solar capacity by year

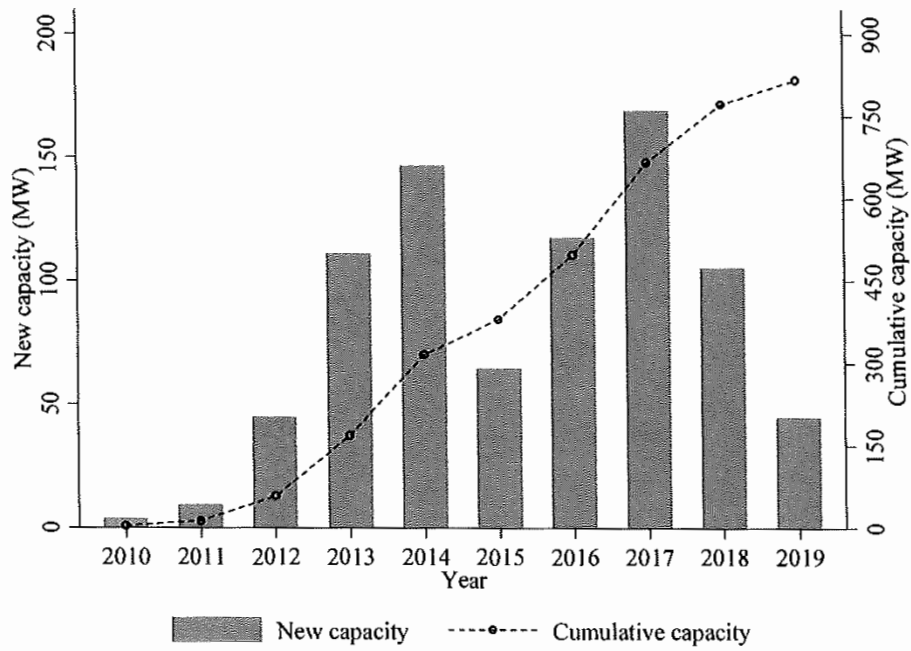
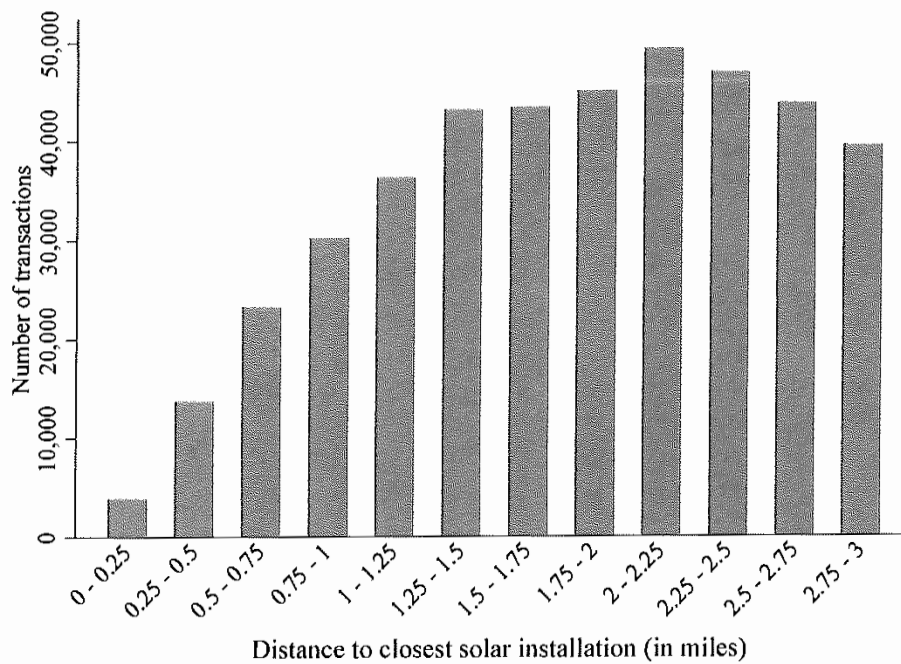
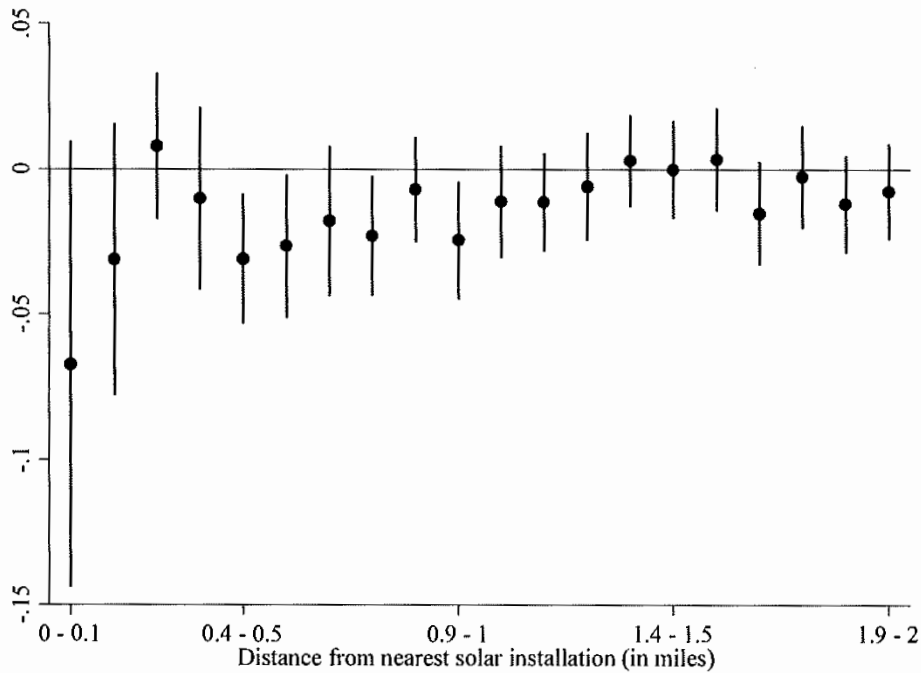


Figure 3: Number of transactions by distance to nearest solar installation



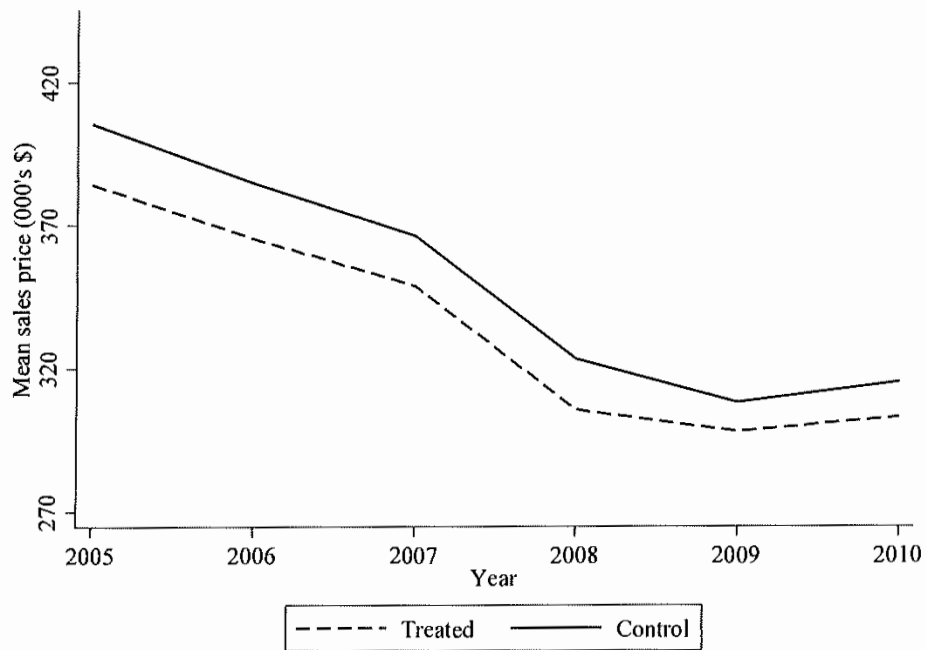
Notes: These transactions occur near eventual solar installations, since the data span across the years 2005 – 2019, and the construction of the installations is staggered throughout that time period.

Figure 4: Distance bin coefficient estimates



Notes: The treatment variable is defined as a bin variable, with treated properties lying within 1/10 mile distance bands up to 2 miles. Control properties are those lying 2 – 3 miles away from the nearest solar installation. The coefficients are obtained by estimating a series of DID models similar to Equation 2 that regresses log sales price on 1/10 mile distance bands up to 2 miles, along with month-year, county-year, and property fixed effects. Resulting coefficients and 95% confidence intervals are graphed.

Figure 5: Pre-treatment trends between treatment and control groups



Notes: The graph represents all transactions occurring pre-construction. Treated are properties within one mile of an eventual solar installation, and Control is between one and three miles. The sample size is 181,190.

Table 1: Housing attribute means by treatment status

Variables	Full sample	Pre-treatment means		Normalized difference in means
		0 - 1 mile	1 - 3 miles	
Sales price (000's)	338.32	327.70	340.74	-3.11e-07
Lot size (acres)	0.49	0.50	0.48	0.017
House area (sq. feet)	2874.92	2849.70	2865.73	-5.83e-06
Bedrooms	2.91	2.88	2.91	-0.027
Full bathrooms	1.56	1.56	1.56	-0.012
Half bathrooms	0.52	0.52	0.52	-0.009
Age of home (years)	49.23	43.06	48.11	-0.003
Condo (1=yes)	0.21	0.22	0.21	0.058
Pool (1 = yes)	0.04	0.04	0.04	-0.027
Air conditioning (1 = yes)	0.43	0.47	0.43	0.121
Fireplace number	0.41	0.38	0.42	-0.076
Condition (1 = above average)	0.26	0.22	0.26	-0.150
Greenfield (1 = yes)	0.45	0.46	0.46	0.021
Rural (1 = yes)	0.34	0.40	0.34	0.199
Observations	419,258	51,471	252,773	

Notes: Sales prices are adjusted to 2019 levels using the CPI. Normalized difference in means calculated according to Imbens and Wooldridge (2009). Normalized differences exceeding 0.25 in absolute value are considered statistically different.

Table 2: Difference-in-differences estimates of the impact of solar installations on property prices

Independent variables	Dependent variable: Sale price (ln)		
	(1)	(2)	(3)
Treated	0.002 (0.005)		
Post	0.015*** (0.004)	0.011** (0.005)	-0.006 (0.004)
Treated × Post	-0.016*** (0.005)	-0.026*** (0.007)	-0.017*** (0.006)
Fixed Effects			
Month-year	Y	Y	Y
Block	Y		
Property		Y	Y
County-year			Y
Observations	419,258	231,503	231,503
R ²	0.804	0.889	0.893

Notes: Treat = 1 if a house is within 1 mile of a solar construction and Post = 1 if a house sells post-construction. Column 1 includes the following control variables: lot size, house area, number of bedrooms, full bathrooms, half bathrooms, and fireplaces, indicator variables for condos, the condition of the house, and for the presence of a pool and air conditioning, capacity of installation (in MW) and greenfield. Standard errors are clustered at the tract level and shown in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

Table 3: Robustness checks

Independent variables	Dependent variable: Sale price (ln)					
	Price cuts at top and bottom 1%	Lot size no more than 5 acres	Drop Condos	Keep all installations	1 MW = 4 acres	1 MW = 6 acres
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × Post	-0.015** (0.007)	-0.016*** (0.006)	-0.014*** (0.005)	-0.017*** (0.006)	-0.016*** (0.006)	-0.017*** (0.005)
Observations	258,562	230,100	179,387	273,878	233,943	231,977
R ²	0.865	0.894	0.880	0.897	0.894	0.893

Notes: Treated = 1 if a house is within 1 mile of a solar construction, and Post = 1 if a house sells post-construction. All specifications include property, month-year, and county-year fixed effects. Standard errors are clustered at the tract level and shown in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

Table 4: Heterogeneity of treatment effects

Independent variables	Dependent variable: Sale price (ln)
<i>Panel A: Heterogeneity by proximity</i>	
(1 – 2 miles) × Post	-0.005 (0.005)
(0.5 – 1 mile) × Post	-0.019*** (0.007)
(0.1 – 0.5 miles) × Post	-0.017* (0.009)
(0 – 0.1 miles) × Post	-0.070* (0.038)
<i>Panel B: Heterogeneity by prior land use</i>	
Treated × Post	-0.013* (0.008)
Treated × Post × Greenfield	-0.008 (0.011)
<i>Panel C: Heterogeneity by population density</i>	
Treated × Post	-0.024*** (0.008)
Treated × Post × Rural	0.025** (0.011)
<i>Panel D: Heterogeneity by population density and land use</i>	
Treated × Post	-0.014 (0.009)
Treated × Post × Greenfield	-0.036** (0.014)
Treated × Post × Rural	0.002 (0.017)
Treated × Post × Greenfield × Rural	0.056** (0.022)
Observations	231,503

Notes: Treated = 1 if a house is within 1 mile of a solar construction and Post = 1 if a house sells post-construction. In Panel A, (1 – 2 miles), (0.5 – 1 mile), (0.1 – 0.5 miles) and (0 – 0.1 mile) are dummy variables = 1 if properties lie within the respective distances from the nearest solar installation, and distance bin for 2 – 3 miles is omitted. Greenfield = 1 if the prior land use is farm or forest land, and Rural = 1 if the population density per square mile is ≤ 850. Panel B includes an interaction term Post*Greenfield and Panel C includes Post*Rural. Additional interactions included in Panel D are: Treated*Rural, Treated*Greenfield, Post*Rural, Post*Greenfield, Rural*Greenfield, Post*Greenfield*Rural, and Treated*Rural*Greenfield. All models include month-year, county-year, and property fixed effects. Standard errors are clustered at the tract level and shown in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

APPENDIX

This appendix provides supplemental figures and tables to our main results.

Figure A1 maps the location and capacities (in MW) of the 208 solar installations that are included in our main results.

Figure A2 depicts the increase in new and cumulative solar capacity over time by prior land use.

Figure A3 represents the number of sample post-treatment transactions by distance to nearest solar installation, in quarter mile intervals.

Figure A4 shows the distribution of solar installations by capacity.

Table A1 provides post-treatment means and the normalized differences in means between the treated and control groups for key property attributes.

Table A2 assesses robustness of results presented in Table 4 of the main text. We present two additional specifications: month-year fixed effects and block fixed effects in Column 1, and month-year and property fixed effects in Column 2. Column 3 is the same as the results presented in Table 4. In Panel A, we find that the large, negative coefficient found for $(0 - 0.1 \text{ miles}) \times Post$ is only found when property fixed effects are included. In Panels B, C, and D, results are largely similar across columns.

Table A3 explores how different population density cutoff values that define the variable *Rural* affect the results presented in Panel C of Table 4 in the main paper. 850 people/square mile is the cutoff used in the main text. The results in the first three columns (500 people/square mile, 850 people/square mile, and 1000 people/square mile) are quite consistent. The results in columns 4 and 5 (1200 people/square mile, 1500 people/square mile) are qualitatively similar to the previous results, but the coefficient on $Treated \times Post \times Rural$ is smaller in magnitude and not statistically significantly different from zero. In the final column (2000 people/square mile), the coefficient on $Treated \times Post \times Rural$ is negative and statistically insignificant, and the coefficient on $Treated \times Post$ is statistically insignificant as well. The trend in results is expected as more areas are classified as rural. Given that we find that negative property value impacts of solar are strongest in non-rural (suburban) areas, as these places are increasingly classified as rural, the coefficient on $Treated \times Post \times Rural$ is a mixture of the zero impacts in rural areas and the negative impacts in non-rural areas.

Table A4 explores how different population density cutoff values that define the variable *Rural* affect the results presented in Panel D of Table 4 in the main paper, similar to Table A3. We specify different cutoff values of population density per square mile and report results using our

main specification. The coefficients are consistent with the results of Panel D in Table 4, for all cutoff values except the highest one (2000 people/square mile).

Table A5 explores heterogeneity in treatment effect by the size of the solar installations. We define *LargeCapacity* as an indicator variable = 1 if the size of the installation (in MW) is greater than the median value in our sample (2 MW). We find no evidence of heterogeneity by installation size, the coefficient is small and statistically insignificant, implying no additional disamenities from solar developments larger than 2 MW. We additionally explore an alternative specification (results not provided) where capacity is treated as a linear variable and is interacted with *Treated* × *Post*. These estimates yield the same conclusion to those in Table A3. This result indicates that the presence of utility-scale solar is a disamenity regardless of size. Given that the smallest installations in our analysis are still quite large at five acres in size (about 3.8 football fields), it could be that there is no additional impact of size because it is difficult or even impossible to see beyond five acres from ground level. However, one limitation of this analysis is that the range of observed sizes is narrow. Of the 208 installations in our dataset, almost 50% have a capacity of 2 MW or lesser, and only 13 (6%) are 5 MW or larger.

Table A6 examines heterogeneity in treatment effect by time elapsed. We split our *Post* variable into two sub-categories: *Post (Less than 3 years)* and *Post (3 or more years)*, where *Post (Less than 3 years)* is a dummy variable = 1 if a property transacts less than three years post-construction, and *Post (3 or more years)* is a dummy variable = 1 if a property transacts 3 or more years post-construction. We interact both variables with *Treated*, and find that both coefficients are significant and almost equal across the board, implying no change in the effect over time.

Figure A1: Map of solar installations at least 1 mile apart across Massachusetts and Rhode Island

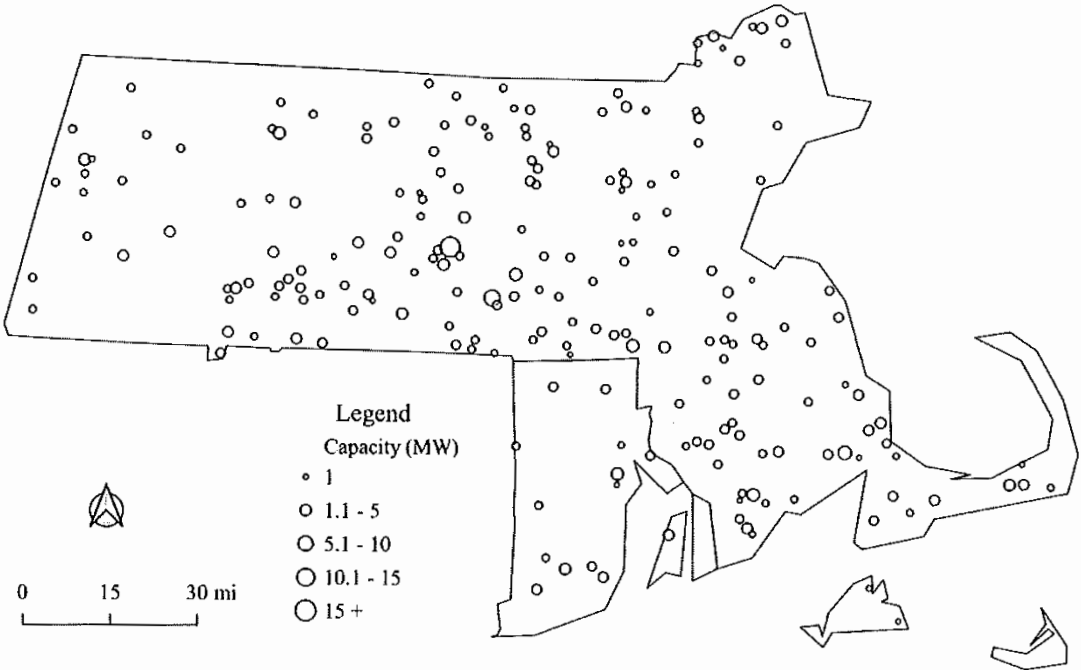


Figure A2: New and cumulative capacity by year and land use

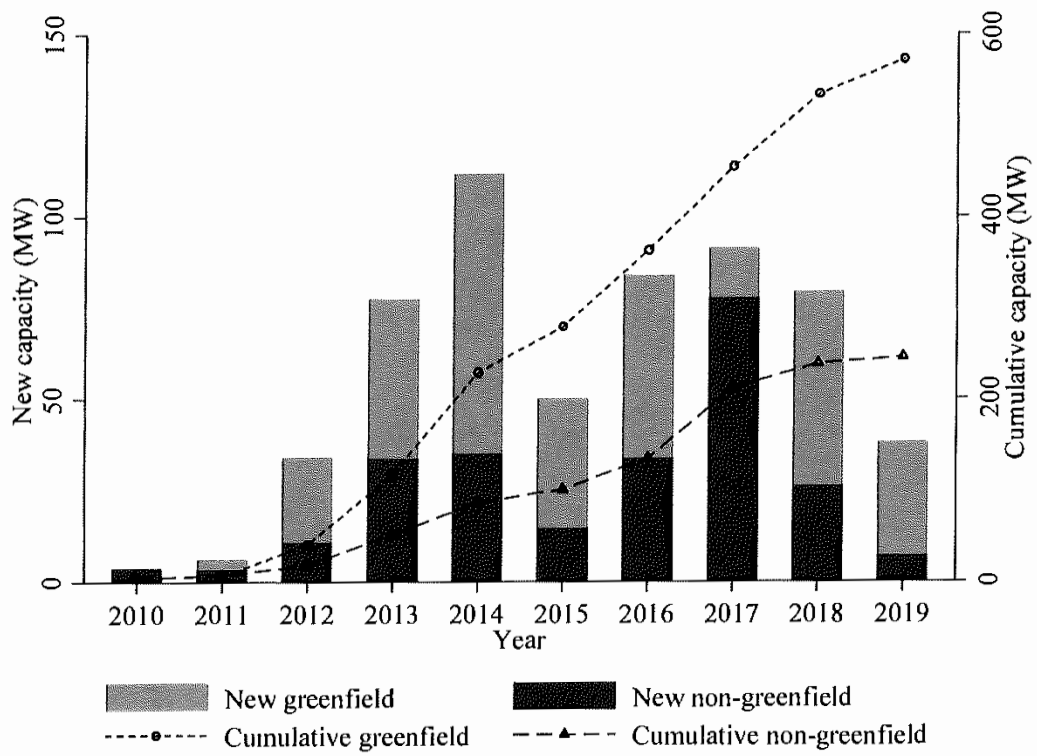
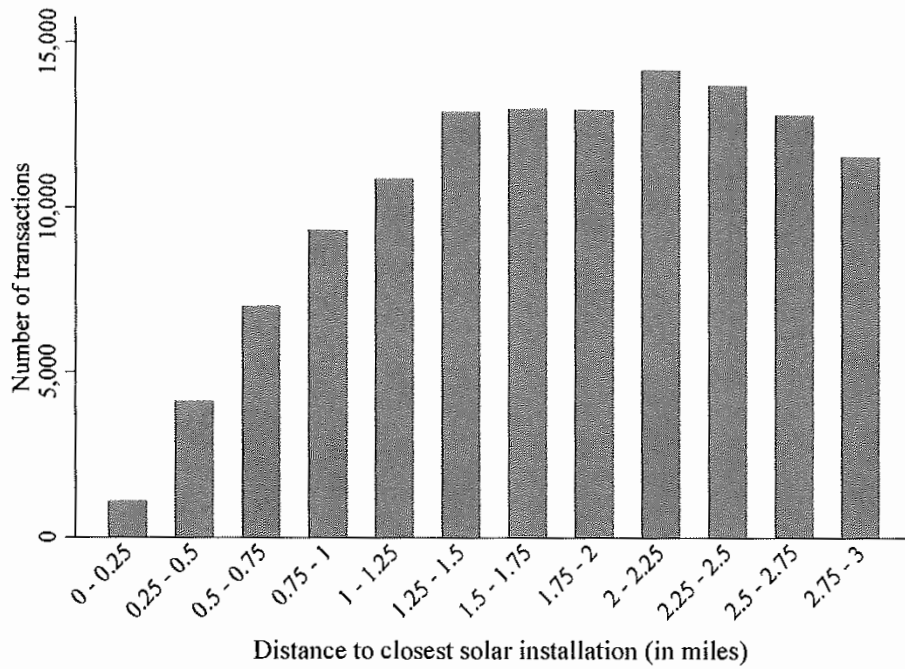


Figure A3: Number of post-construction transactions by distance to nearest solar installation



Notes: These transactions occur near eventual solar installations, since the data span across the years 2005 – 2019, and the construction of the installations is staggered throughout that time period.

Figure A4: Frequency of solar installations by capacity

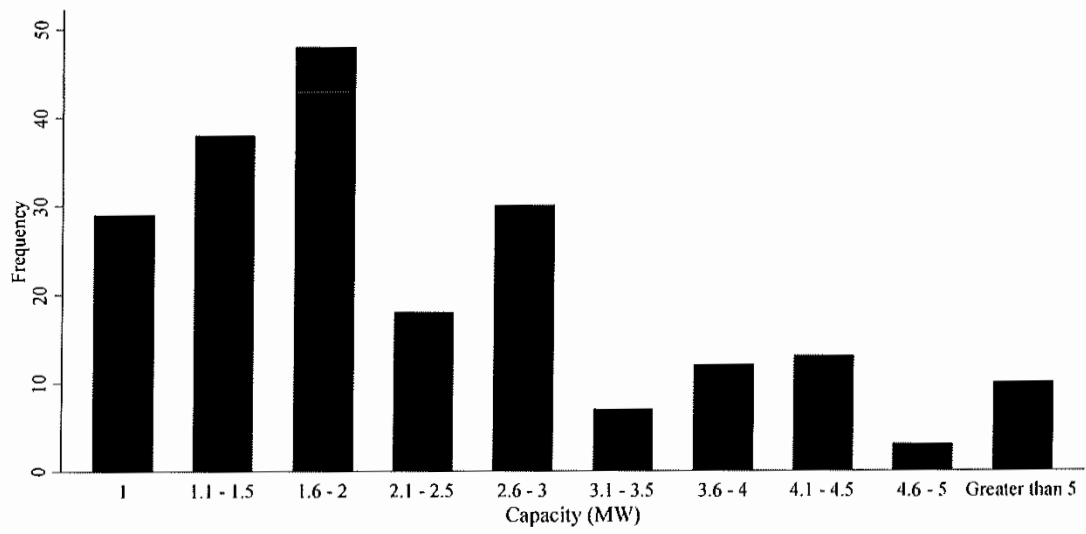


Table A1: Housing attribute means by treatment status, post construction

Variable	Post-treatment means		Normalized difference in means
	0 - 1 mile	1 - 3 miles	
Price (000's)	321.02	341.25	-4.64e-07
Lot size (acres)	0.48	0.50	-0.013
House area (sq. feet)	2872.97	2913.40	-1.47e-05
Bedrooms	2.90	2.93	-0.024
Full bathrooms	1.56	1.57	-0.020
Half bathrooms	0.53	0.53	0.001
Age of home (years)	52.17	54.95	-0.001
Condo (1=yes)	0.21	0.20	0.041
Pool (1 = yes)	0.04	0.04	-0.033
Air conditioning (1 = yes)	0.45	0.43	0.078
Fireplace number	0.35	0.40	-0.117
Condition (1 = above average)	0.25	0.28	-0.013
Greenfield (1 = yes)	0.39	0.42	-0.095
Rural (1 = yes)	0.40	0.32	0.239
Observations	19,866	95,148	

Table A2: Heterogeneity of treatment effects

Independent variables	Dependent variable: Sale price (ln)		
	(1)	(2)	(3)
<i>Panel A: Heterogeneity by proximity</i>			
(1 – 2 miles) × Post	-0.009* (0.005)	-0.006 (0.006)	-0.005 (0.005)
(0.5 – 1 mile) × Post	-0.019*** (0.007)	-0.027*** (0.009)	-0.019*** (0.007)
(0.1 – 0.5 miles) × Post	-0.025*** (0.008)	-0.030*** (0.011)	-0.017* (0.009)
(0 – 0.1 miles) × Post	-0.037 (0.028)	-0.092** (0.036)	-0.070* (0.038)
<i>Panel B: Heterogeneity by prior land use</i>			
Treated × Post	-0.013 (0.008)	-0.024** (0.010)	-0.013* (0.008)
Treated × Post × Greenfield	-0.009 (0.010)	-0.005 (0.014)	-0.008 (0.011)
<i>Panel C: Heterogeneity by population density</i>			
Treated × Post	-0.022*** (0.008)	-0.034*** (0.010)	-0.024*** (0.008)
Treated × Post × Rural	0.024** (0.010)	0.034** (0.014)	0.025** (0.011)
<i>Panel D: Heterogeneity by population density and land use</i>			
Treated × Post	-0.013 (0.010)	-0.024* (0.013)	-0.014 (0.009)
Treated × Post × Greenfield	-0.029** (0.014)	-0.030 (0.019)	-0.036** (0.014)
Treated × Post × Rural	0.008 (0.014)	0.011 (0.019)	0.002 (0.017)
Treated × Post × Greenfield × Rural	0.041** (0.019)	0.051** (0.026)	0.056** (0.022)
Fixed Effects			
Month-year	Y	Y	Y
Block	Y		
Property		Y	Y
County-year			Y
Observations	419,258	231,503	231,503

Notes: Treated = 1 if a house is within 1 mile of a solar construction and Post = 1 if a house sells post-construction. In Panel A, (1 – 2 miles), (0.5 – 1 mile), (0.1 – 0.5 miles) and (0 – 0.1 mile) are dummy variables = 1 if properties lie within the respective distances from the nearest solar installation, and distance bin for 2 – 3 miles is omitted. Greenfield = 1 if the prior land use is farm or forest land, and Rural = 1 if the population density per square mile is ≤ 850. Panel B includes an interaction term Post*Greenfield and Panel C includes Post*Rural. Additional interactions included in Panel D are: Treated*Rural, Treated*Greenfield, Post*Rural, Post*Greenfield, Rural*Greenfield, Post*Greenfield*Rural, and Treated*Rural*Greenfield. All models include month-year, county-year, and property fixed effects. Standard errors are clustered at the tract level and shown in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

Table A3: Heterogeneity of treatment effects by population density

Independent variables	Population density per square mile cutoff					
	500	850	1000	1200	1500	2000
Treated × Post	-0.020*** (0.006)	-0.024*** (0.008)	-0.024*** (0.008)	-0.023*** (0.008)	-0.018** (0.008)	-0.006 (0.009)
Treated × Post × Rural	0.022* (0.012)	0.025** (0.011)	0.023** (0.011)	0.016 (0.011)	0.008 (0.011)	-0.013 (0.011)
Observations classified as rural						
Solar installations	40%	61%	69%	76%	82%	87%
Properties	16%	32%	39%	46%	53%	62%
Observations	231,503	231,503	231,503	231,503	231,503	231,503
R ²	0.894	0.894	0.894	0.894	0.894	0.894

Notes: Dependent variable is Sale price (ln) in all specifications. Treated = 1 if a house is within 1 mile of a solar construction, Post = 1 if a house sells post-construction, and Rural = 1 if the population density per square mile is ≤ column heading value. All models include month-year, county-year, and property fixed effects. Standard errors are clustered at the tract level and shown in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

Table A4: Heterogeneity of treatment effects by population density and land use

Independent variables	Population density per square mile cutoff					
	500	850	1000	1200	1500	2000
Treated × Post	-0.014* (0.008)	-0.014 (0.009)	-0.016 (0.010)	-0.014 (0.010)	-0.006 (0.010)	0.005 (0.010)
Treated × Post × Greenfield	-0.018 (0.012)	-0.036** (0.014)	-0.028* (0.015)	-0.031** (0.015)	-0.041*** (0.016)	0.005 (0.010)
Treated × Post × Rural	0.000 (0.018)	0.002 (0.017)	0.008 (0.016)	0.002 (0.016)	-0.013 (0.015)	-0.055*** (0.018)
Treated × Post × Greenfield × Rural	0.038* (0.023)	0.056** (0.022)	0.039* (0.021)	0.040* (0.021)	0.057*** (0.021)	-0.029** (0.014)
Observations classified as rural						
Solar installations	40%	61%	69%	76%	82%	87%
Properties	16%	32%	39%	46%	53%	62%
Observations	231,503	231,503	231,503	231,503	231,503	231,503
R ²	0.894	0.894	0.894	0.894	0.894	0.894

Notes: Dependent variable is Sale price (ln) in all specifications. Treated = 1 if a house is within 1 mile of a solar construction, Post = 1 if a house sells post-construction, and Rural = 1 if the population density per square mile is ≤ column heading value. All models include month-year, county-year, and property fixed effects. Standard errors are clustered at the tract level and shown in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

Table A5: Heterogeneity of treatment effects by solar installation size

Independent variables	Dependent variable: Sale price (ln)		
	(1)	(2)	(3)
Treated × Post	-0.012* (0.007)	-0.024*** (0.009)	-0.019*** (0.007)
Treated × Post × LargeCapacity	-0.011 (0.011)	-0.005 (0.015)	0.004 (0.012)
Fixed Effects			
Month-year	Y	Y	Y
Block	Y		
Property		Y	Y
County-year			Y
Observations	419,258	231,503	231,503
R ²	0.801	0.889	0.893

Notes: Treated = 1 if a house is within 1 mile of a solar construction and Post = 1 if a house sells post-construction and LargeCapacity = 1 if the capacity of the installation is greater than 2 MW. Column 1 includes the following housing controls: lot size, house area, number of bedrooms, full bathrooms, half bathrooms, and fireplaces, a set of dummy variables for the age of the house at purchase, indicator variables for condos, the condition of the house, and for the presence of a pool and air conditioning. Standard errors are clustered at the tract level and shown in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

Table A6: Heterogeneity of treatment effects by years since construction of installation

Independent variables	Dependent variable: Sale price (ln)		
	(1)	(2)	(3)
Treated × Post (Less than 3 years)	-0.016** (0.006)	-0.026*** (0.009)	-0.016** (0.007)
Treated × Post (3 or more years)	-0.016** (0.006)	-0.024*** (0.008)	-0.016** (0.007)
Fixed Effects			
Month-year	Y	Y	Y
Block	Y		
Property		Y	Y
County-year			Y
Observations	419,258	419,258	231,503
R ²	0.491	0.801	0.889

Notes: Post (Less than 3 years) = 1 if a house sells within 3 years post-construction, and Post (3 or more years) = 1 if a house sells 3 or more years post-construction. Columns 1 includes the following controls: lot size, house area, number of bedrooms, full bathrooms, half bathrooms, and fireplaces, a set of dummy variables for the age of the house at purchase, indicator variables for condos, the condition of the house, and for the presence of a pool and air conditioning, capacity of installation (in MW) and greenfield. Standard errors, clustered at the tract level, are in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1%, respectively.

KEY FINDINGS OF THE MARK HECKMAN STUDY

MARK W. HECKMAN REAL ESTATE APPRAISERS

Mark W. Heckman, a Pennsylvania certified general real estate appraiser testified in September 2020 at a Mount Joy Township, Gettysburg, Adams County, PA Board of Supervisors meeting concerning the application of Brookview Solar I, proposed a 75 MW SEGPS on 1000 acres. Based on the following case studies, the appraiser concluded that property values of the 114 residences within 1,000 linear feet of the would decline up to 20.00 percent.

Adams County View Case Study

This appraiser compared sales of properties with a Multiple Listing Service (MLS) reported "view" with those without such a designation. "View" was defined as: City, Creek/Stream, Golf Course, Lake, Mountain, Panoramic, Pasture, Pond, River, Scenic Vista, Trees/Woods, Valley and Water.

The MLS search was based on a 3-4 bedroom ranch style single family dwelling on a lot of less than 5.00 acres with and without a "view." The result of the search included a data set of 85 properties with a "view" which indicated an average sale price of \$251,274 and median sale price of \$235,000. The data set without a "view" included 410 properties with an average sale price of \$227,808 and a median sale price of \$215,000. **The difference between the average sale prices was -9.34 percent and the difference between the median sale prices was -8.51%.** (However, the appraiser concluded in the affirmative that the view added 10.31 percent to the average sale price and 9.30 percent to the median sale price).

The appraiser concluded that, "In Adams County a Good View adds approximately 10% to the value of residential property. So it is **reasonable to conclude that a loss of 15-20% for degradation of view** is reasonable and credible since many properties would go from Good View to Objectionable View if they now had to see thousands of solar panels."

Mr. Heckman noted that this solar application and proposed site plan encompassing some adjacent homes on 3 and 4 sides, reminds of an era when there were no zoning regulations. He also noted that the submitted "Andrew Lines" (name of the Developer's Appraiser) solar property impact study reporting "no impacts" was unacceptable, woefully inadequate data, very deceptive/misleading, fatally flawed analysis, and lacked the transparency required to produce an ethical or credible conclusion. Andrew Lines' name is on the Cohn Reznick study, as co-author.

In understanding further why there are issues with the CohnReznick study, look no further than the USPAP (Universal Standards of Professional Appraisal Practices) guidelines. Numerous guidelines were not followed (see highlighted areas of attached document). In addition to this, CohnReznick failed to disclose that CohnReznick Capital provides numerous services for Renewable Energy Companies, including Project Finance, Merger & Acquisition Advisory, Capital Raising, & Restructuring. Therefore, if CohnReznick makes A LOT of money from Renewable Energy, then wouldn't their studies be a conflict of interest? I believe so. *(Also read the document called Small Scale Solar VS Large Scale Solar, as this discusses the CohnReznick study.)*

MARY MCCLINTON CLAY, MAI
218 Main Street
Paris, Kentucky 40361
859-987-5698

November 9, 2020

Ms. Denise Spooner
T & D Realty
139 W. Oak Street
Alexandria, IN 46001

Re: Review of Marous & Company
Market Impact Analysis
Proposed Loan Oak Solar Farm
Madison County, Indiana

Dear Ms. Spooner:

As requested, I have reviewed the above captioned report dated April 11, 2019. The report consist of approximately 13 case studies in support of the appraiser's conclusion "that there does not appear to have been any measurable negative impact on surrounding residential property values due to the proximity of a solar farm."

The appraiser based his studies on the standard appraisal methodology of paired sales analysis and sale-resales analysis. The appraiser referred to this methodology from the appraisal industry standard for damage studies, *Real Estate Damages*. However, throughout the report, the appraiser failed to use the technique properly. The purpose of this analytical tool is to compare properties that are truly comparable in all respects except that one is in proximity to a solar farm and the other is not. Without exception, the appraiser cited two sales, many of which were not comparable, and merely declared there to be no indication of diminution in value without any analysis or justification.

The most relevant case study to Lone Oak is the 1,000 acre 100 MW North Star Solar Project in North Branch, Minnesota. This case study consisted of two analysis. The first consisted of a list of 8 sales within proximity to the solar plant with the conclusion "that there does not appear to have been any measurable negative impact..." Aside from no analysis of the individual sales, there were several errors including no time adjustment for the sales ranging in date from 2013 to 2018. In addition, several of the sale prices and building sizes were incorrect.

The second case study involving North Star data included six sale-resales of properties in proximity to the solar facility. This case study also merely listed the sale data and concluded no damage with no analysis. The appraiser omitted the significant fact that the developer had purchased each property between the two sales cited. The attached detailed chart of the sales indicate that the developer paid \$2,773,000 for seven properties (the

Ms. Denise Spooner
November 9, 2020
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appraiser omitted the seventh one) and sold them the following year for \$2,145,781,

representing a loss of \$627,219, or -22.62 percent. Although the purchases may not represent market value transactions, the appraiser represented the resales as such. It was misleading not to indicate the grantee and grantor as the solar developer.

In addition, the appraiser listed the sale prior to the developer's purchase and compared the sale price to the developer's resale. Several of these sales occurred in 2000 and 2001 and there was no time adjustment within the comparison that concluded no diminution in value. The attached chart indicates that, adjusted for time, these sales when compared to the developer's resales indicate value declines from -1.14 to -28.0 percent, with the exception of one sale that did not change. The average diminution in value was -11.3 percent.

It is my professional opinion that this report failed to adequately support its conclusion that there was no diminution in value as a result of proximity to the solar facilities as cited. This was compounded by reporting errors, lack of sales analysis, in addition to withheld critical information. It is fundamentally flawed and incomplete on all accounts. The following detailed analysis of each case study supports my conclusion.

INDIANA CASE STUDIES

This study was prepared by Marous & Company of Park Ridge, Illinois. The first case study is typical of all the succeeding case studies and will be discussed in detail. This paired sales analysis compares a house within 425.00 feet from the solar facility to a house about 3.5 city blocks away from the facility which was unaffected. The problem with this comparison is that the dwellings are not physically comparable to the extent that the sale prices differ by 33.5 percent. The sales required too many adjustments to result in a reliable conclusion that there was no impact on the test property.

The correct analysis of this solar facility would have been to compare the before and after sales of the properties that abut the facility and possibly those on the opposite side of the street that have a direct view of the solar panels. There are approximately 6 residential properties that abut the facility and as many across the road. The solar farm was "installed in 2014." The proper analysis would have been to analyze these properties to determine if they had been listed or sold prior to construction and to determine how many days they had been on the market. Then compare that data to any listings or sales subsequent to construction.

This appraiser also made a second analysis relative to the **Frankton Solar Park** comparing an abutting dwelling on 3.03 acres to a house on 0.15 acres on the opposite side of town with a difference in selling price of -35.1 percent.

To just compare an abutting sale to a random non-comparable non-abutting sale and conclude that there is no impact is misleading and non-credible.

This appraiser also made a Grant County, Indiana analysis relative to **Deer Creek P.V. in Marion**. This solar facility was constructed in 2015 and generates 2.5 MW of power. The solar facility was constructed on the 50.00+/- acre Indiana Michigan Power plant and AEP Deer Creek Substation. The test sale is from an approximate 25 house rural residential subdivision 500.00 feet south of the solar panels.

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The proper analysis would have been to analyze the entire subdivision sales both before and after the solar arrays were constructed not only documenting the sales, or sales-resales, length of time on the market, listings that were withdrawn, number of sales, listings both before and after to determine any buyer resistance relative to the expected market. The rate of value change relative to the rest of the area should be analyzed. However, because the subdivision was adjacent to an industrial use, the purchasers of the dwellings would have been aware of the possibility of the expansion of the existing industrial use.

The appraiser did not discuss any of these considerations. He merely compared one of the sales farthest from the panels which is a ranch style dwelling on a 0.47 acre tract to a two

story rustic dwelling on a woodland 4.79 acre tract. These properties could not be more dissimilar. Once again, by merely comparing two random sales fails to prove the relationship between the solar farm and any affected properties.

WISCONSIN CASE STUDIES

Jefferson Solar Park is at the northeastern part of Jefferson northeast of E. Puemer Street and N. Parkway Street. The solar facility is immediately south of Generac Power Systems in an industrial subdivision. The solar farm was installed in 2013 and generates 1 MW of power.

The paired sales analysis consists of comparing a dwelling within the central part of town approximately 0.5 mile south of the solar plant in an established neighborhood which has no relationship to the solar plant. The property is compared to a similar property in Fort Atkinson, Wisconsin, the town to the south. This case study is meaningless and at the least, misleading.

A second Wisconsin matched pair study involves the **Liberty Pole DPC Solar Farm** in Vernon County. The 1.1 MW facility was constructed in 2017. It is over 0.50 mile from the "test" property, which too far away from the solar panels by at least one farm and woodland to be potentially affected. The "test" property is a two story turn of the century (1910+/-) dwelling which was compared to a modern raised ranch house constructed in 1998. This analysis is also irrelevant.

A third case study in Wisconsin relates to the **Lafayette DPC Solar Farm** in Chippewa County in the northwest part of the state. The 1.0 MW solar facility was constructed in 2017. The "test" property is nearly 1.5 miles west of the solar plant and separated by farmland and 3,300 linear feet depth of woodland. Considering this distance, the solar farm has no impact what-so-ever on the "test" property. Once again, the matched pairs analysis, which is redundant, compares non comparable properties. The test property is a 1964 brick split foyer in a rural residential area compared to a 1995 two story frame residence within the urban service area.

ILLINOIS CASE STUDIES

The first case study is from LaSalle County Illinois in the northeastern region of the state. It relates to the 20 MW **Grand Ridge Solar Farm**, constructed in 2012, which adjoins Ms. Denise Spooner
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a wind farm covering what appears to be thousands of acres. This fact was not acknowledged in the analysis. The neighborhood requires analysis visa via the wind farm both before and after construction of each facility based on the outline previously provided before it can be ascertained that there is no adverse effect upon the properties. Merely, comparing a 2016 sale in proximity to the solar panels to a 2010 sale on the other side of the county and concluding there is no damage is misleading. The logical conclusion is to wonder why there have been no comparable sales in the last six years in that part of the county in which the solar farm is located.

A second Illinois case study is based on the **Rockford Solar Farm** in Winnebago County in the northern region of the state. This 3.06 MW facility was constructed in 2012 at the southern edge of the town. The "test" sale is from a residential subdivision 3,117.0 linear feet northeast of the solar farm. There are several house lots and rural residential tracts between the dwelling and the solar farm to the extent that there is no diminishment of the utility upon the property. This sale was redundantly compared to a two story "control" sale that occurred 2.5 years before the ranch style test sale.

IOWA CASE STUDY

This study is from Dubuque County in the central-east region of Iowa representing the **West Dubuque Solar Farm** in a generally rural area. The 3.8 MW solar plant was constructed in 2017. The “test” property is a single-family house in an isolated subdivision with very small lots that adjoins commercial and industrial uses to the south and east. The solar farm is over 0.5 mile to the west. Not only is the solar plant a significant distance from the house, but this property is in the middle of the block and its view would have been obscured by several houses. The control sale is within the urban center while the test sale is predominantly in the rural area and are comparable.

MINNESOTA CASE STUDIES

A case study from southeast Minnesota was included representing the **Wabasha Holdco Solar Farm**. The 2.0 MW plant was constructed in 2017. The “test” sale is from a partially developed subdivision (based on a current, October 23, 2020, observation from Google Earth) which corresponds with that view represented in the report. It is significant that the subdivision also adjoins a cell tower that is within 300.00 linear feet of the subdivision. This office has completed a cell tower damage study and documented that residential sites within 1,500 linear feet are devalued 20.00 percent. Also, medical studies have found that residences should not be within 1,500 linear feet of a cellular tower. The appraiser did not mention the cell tower, nor did he mention that the subdivision has no developed lots in the block closest to the cell tower. In addition, there was no mention much less an explanation as to why the subdivision had only been partially developed. Rather than comparing a “test” property with a “control” sale that is from an entirely different part of town that is opposite a country club and golf course in addition to the sale being two years older, the appraiser should have analyzed the rate of development and sale of houses relative to that of a genuinely competing subdivision absent the cell tower and solar farm.

Ms. Denise Spooner
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A second Minnesota study relates to the **North Star Solar Farm** in North Branch, MN. This 100 MW solar plant went on-line in 2017. At that time this 1,000 acre generating plant was the largest solar energy facility in the Midwest.

This solar plant case study is in two parts. The first study consists of eight sales ranging over a five year period from July 8, 2013 to January 2, 2018. These sales are represented on the attached chart. Sales No. 1 through 5 adjoin the solar plant, while Sales No. 6 through 8 are 0.45 to 1.05 miles north of the facility. With no specific paired analysis, the appraiser concluded that, “there does not appear to have been any measurable negative impact on surrounding property values due to the proximity of the solar farm.”

The appraiser’s conclusion is not supported by any analysis or the correct reporting of the sales facts. The first error is that the sales prices reported did not reflect seller paid amounts for Sales No. 2, 3, 5, 7, and 8. Not only did Sale No. 8 not include the cash equivalent amount, but the sale price was in error. The sale price was \$206,000 rather than \$210,000. In addition, all but one of the building sizes were significantly larger than the areas indicated by the tax assessor. However, the source of these areas was not indicated.

The third error is that with a five year range of sale dates, a time adjustment is necessary to reflect a basis for comparison. Sales No. 1 through No. 5 are either adjacent to or in the immediately vicinity of the solar plant. Sale Nos. 6 through 8 are distant from the solar plant, these are older dwellings on larger, albeit forested lots. These are not comparable properties with respect to land or improvements, absent proximity to the solar plant.

Of the eight sales presented by this appraiser, the two most comparable sales with the exception of proximity to the solar plant are Sales No. 4 and No. 5. Sale No. 4 is on the west side of Little Oak Lane and is separated from the solar plant by dense trees, Sales No. 1 and

No. 2, and Little Oak Lane. Sale No. 5 is directly across Judy Street from the solar plant. Although Sale No. 5 consists of an older dwelling, this is estimated to be offset by a larger lot. The difference between these two sales adjusted for time is -26.10 percent.

Sale No. 4:	Adjusted Sale Price/SF = \$224.31/SF	
Sale No. 5:	Adjusted Sale Price/SF = \$165.77/SF	
Difference:		-26.10%

A second analysis included the sale-resales of six properties adjacent to the North Star solar plant which had a sale dates ranging from 2000 to 2018. These sales were purchased by CRE Land, LLC, the developer of the solar plant and subsequently sold after construction. However, the appraiser failed to divulge the name of the grantee or grantor of these transactions. On addition, the appraiser only cited the sale to the prior owner and the sale from the solar developer to a new owner. In other words, he left out the middle sale to the developer. In addition, he merely listed the sale without analysis, other than to remark there was no damage.

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The chart following represents all three sets of sales and indicates the proper analysis for this data. The chart includes two methods of analyzing the data. First, it indicates that the solar developer paid a total of \$2,323,99 to acquire the most affected properties and sold them for \$1,863,581, or a loss of \$459,419, or -19.91 percent. These sales obviously do not represent market value, but it is noteworthy that the developer had to negotiate with these property owners. No doubt the developer would not have spent nearly \$500,000 unless it was necessary.

Secondly, the chart examines the older sale submitted by the appraiser and it is increased for time to enable it to be compared to the sale from the developer. This market value sale is increased for time based on the attached chart of median prices of single family dwellings in North Branch from 2000 to 2020. This adjusted value is reflected in bold in the Comments column of the chart and is compared to the sale price of the properties when sold by the developer.

Sale/Resale No. 1 indicates a decline of -18.2 percent. Sale/Resale No. 2 indicates a decline of -28.0 percent. Sale/Resale 3 does not indicate a decline, however, there must have been significant changes in the property since the original sale. Therefore, this Sale/Resale is not included. Sale/Resale No. 4 indicates a decline of -12.9 percent. Sale/Resale No. 5 indicates no change. Sale/Resale No. 6 indicates a decline of -1.14 percent. Sale/Resale No. 7 was not included in the appraiser's analysis. However, it indicates a decline of -7.6 percent.

Of the six Sale/Resales, the average decline is -11.3 percent. Including Paired Sales No. 4 and 5, the total average decline indicated by the sales cited by Marous & Company is 13.42 percent. This is significantly different than the Marous & Company conclusion that the solar plant has no negative affect upon adjacent properties.

GOLDSBORO, NC CASE STUDY

A study from Spring Garden Subdivision in Goldsboro, North Carolina was included which adjoins the 6.65 MW AM Best Solar Farm which was constructed in 2013 on approximately 40.00 acres. The solar farm adjoins commercial uses to the east on US 117 and the single family subdivision to the west.

The appraiser compared 8 sales that adjoin each other with sale dates ranging from 2013 to 2017. With the exception of one sale, all were builder sales. All the sales were one lot removed from the solar panels and were equally impacted/unimpacted by proximity to the

solar plant. With no control comparison, this study indicated no supportable evidence one way or the other.

A second analysis included four sale-resales generally opposite the first group of sales, however, adjoining the solar farm. All these sales occurred after construction of the solar farm and are equally affected or not by their proximity to the solar facility. Again, with no control group any indication as to whether the solar farm affects these properties or not is inconclusive.

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ELIZABETH CITY, NC STUDY

The final study relates to the Morgan's Corner Solar Farm in Elizabeth City, North Carolina, which was constructed in 2015. The 20 MW solar facility on 110.00 acres was sold by the developer, Invenergy upon construction to Dominion.

The appraiser used 8 sales that occurred after construction of the plant, however, none of the sales adjoined the solar facility nor did they have a direct view of it, though two of the sales were within 640 to 830 linear feet of the facility. The remaining six sales ranged in distance of 0.40 to 1.00 mile and were not affected by the solar plant in any manner. Without a test and control group, the mere listing of these sales is inconclusive.

If you have any questions or need further documentation, please call.

Sincerely,

Mary McClinton Clay, MAI

MARY MCCLINTON CLAY, MAI
218 Main Street
Paris, Kentucky 40361
859-987-5698

June 26, 2022

Mrs. Denise Spooner
Concerned Solar Neighbors of Madison County
139 W. Oak Street
Alexandria, Indiana 46001

Dear Mrs. Spooner:

As requested, I am submitting a summary of my fully documented report, "A Summary of Solar Energy Generation Power Systems Damage Studies as of June 1, 2022." The original study was prepared for Clark Coalition, Winchester, KY on May 25, 2021 and the first update was prepared for Hardin County Citizens for Responsible Solar, Elizabethtown, KY on January 12, 2022. The study summarizes the current data as it relates to the potential diminution of property value as a result of proximity to Solar Energy Generation Power Systems (SEGPS), also known as utility or industrial scale solar farms.

This analysis includes peer viewed articles; case studies by professional real estate appraisers; solar developer's Neighbor Agreements and buyouts; in addition to four case studies and an analysis of the effect of landscaping on solar farms prepared by this office.

These articles, case studies and agreements, which are summarized in the following charts, contradict the unanimous conclusion of solar developer's appraisers that utility scale solar farms are not detrimental conditions, nor do they adversely impact adjacent property values.

Though diminution in value varies, as the result of a detrimental condition's impact upon a property's utility, the evidence presented by these case studies of 100 MW or less solar farms, indicates that solar farms damages property values by **at least -6.0 percent to -30.0 percent.**

In addition to five previously published studies, indicating property decline of up to -20.00 percent, four case studies, prepared by my office, are included.

The North Branch, MN case study analyzes a developer buy-out of 7 abutting properties purchased by North Star Solar. The sale-resale analysis compares the sale prior to and after the purchase by the developer. The data indicates a property decline of -6.3 to -28.0 percent with an average and median decline of -17.0 percent.

The McBride Place solar farm case study from Midland N.C. includes the analysis of single family sale-resales indicating value declines ranging from -15.5 to -16.8 percent.

The Sunshine Farms case study analyzes 13 single family lots from a subdivision that abuts a solar farm in Grandy, N.C. The sales that adjoin the solar farm sold for -15.5 percent

Mrs. Denise Spooner
June 26, 2022
Page 2

less than the lots that did not abut, despite a required 300.0 foot set back from the rear property line.

The Spotsylvania Solar case examines single family lot sales before and after the announcement of the 6,350.0 acre and 717 MW solar facility. The adjoining sales sold for -30.0 percent less than those not abutting the solar farm.

Solar developers use "Good Neighbor Agreements" to limit local opposition to their solar projects. The Western Mustang Solar Agreement consists of a monetary offer of \$17,000 to adjacent property owners to not oppose their solar plant.

The Light house BP Neighbor Agreement offers \$5,000 to \$50,000 to adjacent property owners depending on proximity to the solar farm.

The Posey Solar, LLC agreement offer is equal to 10.0 percent of appraised value for neighbors within 300.00 feet of the solar field, plus an annual \$1,000 payment, or \$35,000 for the life of the project. Apparently, Posey Solar considers any property within 300.00 feet of a solar farm to be at risk of value decline.

Vesper Energy's offer ranges from \$25,000 to \$7,500 depending on the distance to the solar farm payable in a lump sum at notice to proceed with construction.

These "good neighbor" payments are significant because the developers' own appraisers have determined that solar farms will have no adverse impact on adjacent property values. However, the payments can only be interpreted as a tacit admission of value impairment.

The preponderance of evidence based on these empirical studies indicates that **industrial scale solar farms do negatively impact adjacent properties** to the extent that their utility, as interpreted by the market, is affected. For this reason, the **market considers solar powered electric generating facilities to be a detrimental condition.**

Sincerely,



Mary McClinton Clay, MAI

SUMMARY OF INDICATED VALUE DECLINE

DATE	STUDY	RESULT
2018	University of Texas	Assessor survey responses ranged from value impact of zero to estimation of negative impact associated with close distance between the homes and the facility, and impact increased with increased size of the solar plant.
2019	Nino Abashidze Dissertation	Residential decline within 1.0 mile was -8.7% . Residential decline within 0.5 mile was -12.5% . No impact on farms. Study limited to solar farms less than 5 MW.
2020	University of Rhode Island	Average decline within 3.0 mile radius was -1.7% , or \$5,671. Average decline within 0.1 mile was -7.0% , or \$23,682. The "results suggest extremely large disamenities for properties in very close proximity."
2013	Fred H, Beck & Associates, LLC	Strata Solar Case Study: Potential Purchasers cancel contract upon learning of the solar facility. Clay County Case Study: Lot sales stopped after announcement of solar plant. Clay County Board of Equalization reduced affected property assessments -30.0% . Non-residential Use View Impairment Study: Adjacent incompatible use adversely impacted nearby properties -10.7% to -25.1% , or an average of -15.2% . AM Best Solar Farm Study: No diminution in value due to pre-existing industrial zoning for solar farm.
2020	Mark W. Heckman, R.E. Appraisers	Adams County View Case Study: The loss of view results in a -15% to -20.0% loss in value.

SUMMARY OF INDICATED VALUE DECLINE

DATE	STUDY	RESULT
2019	Madison County Indiana	Potential purchaser offered -16.43 % less than appraised value upon learing of the proposed solar plant.
2021	Mary McClinton Clay, MAI	North Star Solar Case Study: An Analysis of the 7 adjoining properties purchased by North Star PV, LLC. A sale-resale analysis of the sale prior to and subsequent to the purchase by the solar developer. The sale-resales indicate a range of diminution from -6.3% to -28.0% with a median decline of -16.9% and an average decline of -16.8% .
2021	Mary McClinton Clay, MAI	McBride Place Solar Farm Case Study: Analysis of 3 sale-resales and a comparison of the sale price and tax assessment. The sale-resales indicate -15.65% , -15.51% and -16.44 percent diminution in value. The sale price/tax assessment indicates a -16.81% loss of value.
2021	Mary McClinton Clay, MAI	Sunshine Farms Case Study: Analysis of 13 vacant single family lot sales from a subdivision that abutts a solar farm. The sales that adjoin the solar farm sold for -15.5% percent less than the lots that did not abutt the solar farm.
2021	Mary McClinton Clay, MAI	Spotsylvania Solar Case Study: Analysis of 5 vacant single family lots from a section of Fawn Lake Subdivision that abutts a 6,412 acre solar farm. The lots that abutt the solar farm sold for -30.00 percent less than those that did not abutt.
2020	Western Mustang Solar Neighbor Agreement	Monetary offer of \$17,000 to adjacent property owners to quel opposition to the proposed solar facility.

SUMMARY OF INDICATED VALUE DECLINE

DATE	STUDY	RESULT
2020	Lighthouse BP	Monetary offer of \$5,000 to \$50,000 to adjacent property
	Neighbor	owners depending on proximity to the solar facility to quell
	Agreement	opposition.
2021	Posey Solar, LLC	Monetary offer equal to 10% of appraised value for neighbors
	Neighbor	within 300 feet of the solar field, plus an annual \$1,000
	Agreement	payment (\$35,000 for project life).
2021	Vesper Energy	Monetary offer ranging from \$25,000 to \$7,500 depending on
	Neighbor	distance of property to solar farm payable in a lump sum at
	Agreement	notice to proceed with construction.

MISCELLANEOUS DATA

PURPOSE OF THE APPRAISAL

The purpose of the appraisal is to summarize the available damage studies that pertain to solar energy generation power systems, otherwise known as solar farms.

INTENDED USER AND USE OF THE APPRAISAL

The intended user is the addressee; and the intended use is for submission to the Madison County, Indiana Board of Zoning Appeals.

SCOPE OF THE REPORT

The scope of the report examines all available published and empirical evidence to document diminution in value as a result of proximity to industrial scale solar farms.

STATEMENT OF LIMITING CONDITIONS

1. Possession of this report or copy thereof does not carry with it the right to publication nor may it be used for any purpose by any but the applicant without the previous written consent of the appraiser(s), and in any event, only in its entirety.
2. The information contained in this report, gathered from reliable sources, and opinion is furnished by others, were considered correct, however, no responsibility is assumed as to the accuracy thereof.
3. The appraiser(s) is not required to give testimony in court with reference to the subject property unless further arrangements are made.
4. "The American Institute of Real Estate Appraisers conducts a voluntary program of continuing education for its designated members. MAI's who meet the minimum standards of this program are awarded periodic education certification." Mary McClinton Clay, MAI has completed this program.

CERTIFICATION

The undersigned does hereby certify that, except as otherwise noted in this appraisal report.

To the best of my knowledge and belief, the statements of facts contained in this appraisal report are true and correct.

The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions and conclusions.

I have no present or prospective interest in the property, which is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

Compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

I do not authorize the out-of-text quoting from or partial reprinting of this appraisal report. Further, neither all nor any part of this appraisal report shall be disseminated to the general public by the use of media for public communication without the prior written consent of the appraisers signing this appraisal report.

As of the date of this report, Mary McClinton Clay, MAI has completed the requirements of the voluntary continuing education program of the Appraisal Institute.

The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

Mary Clay performed the following functions on this appraisal report: 1) researched available data sources; 2) and wrote the appraisal report.

No one provided significant professional assistance to the persons signing this report.

This report is in conformance with the USPAP Competency Provision.

The USPAP Departure Provision does not apply to this report.

The appraiser's employment is not conditioned on producing a specific value.

The owner or a representative of the property was interviewed. Interviews and research of necessary documents were conducted to confirm the accuracy of the supporting data.

No information pertinent to the valuation has knowingly been omitted.



Mary McClinton Clay, MAI

June 26, 2022

MARY MCCLINTON CLAY
PROFESSIONAL QUALIFICATIONS

Mary McClinton Clay, MAI
218 Main Street, Paris, KY 40361
859-987-5698/Cell: 859-707-5575
mclayky@bellsouth.net

Market Area: Commonwealth of Kentucky

Primary Practice Focus: Litigation and zoning support with an emphasis on damage studies, including environmental and eminent domain.

Appraisal Experience:

1985 to Present: Self-employed - engaged in commercial, industrial and farm valuation.
1979-1984: Employed by Realty Research - engaged primarily in income property appraisal.
1976-1979: Residential appraisal experience with fee appraisers.

Previous assignments include: Eastern State Hospital; Gateway Shopping Center; Lakeside Heights Nursing Home, N. KY; L&N Office Building, Louisville; Alltech Biotechnology Center, Nicholasville, Paris Stockyards; Conrad Chevrolet, Lexington; CSX Rail Yards in Mt. Sterling and Paris; First Baptist Church, Cold Spring; Lusk-McFarland Funeral Home, Paris; Feasibility Study of proposed Hamburg Place Office/Industrial Park, Lexington; Rent Analysis of IRS Service Center, Covington; Surtech Coating, Nicholasville; Clem Refrigerated Warehouse, Lexington; Bluegrass Manufacturing, Lexington; Finley Adhesives, Louisville; Central Manufacturing and Central Light Alloy, Paris; Review Appraisal of Rand McNally Plant, Versailles and Timberland Distribution, Danville; Old Scott County Jail; Millspring Battlefield; Truck Terminals, Fast Food Restaurants, Retail Centers, Lumber Mills, Car Wash, Multi-Family Residential, Mobile Home Parks, Convenient Stores and Subdivision Analyses.

Thoroughbred Horse Farms including Pin Oak Farm, Bunker Hunt Farms, Pillar Stud Farms, Elmendorf Farm, Summer Wind Farm, Hidaway Farm, Stoner Creek Stud, Runnymede Farm, Wilshire Farm, Lynnwood Farms, Stonereath Farm, Idle Hour Farm, Canefield Farm, Elk Creek Farm, Lochness Farm, Stoneleigh Farm, Elizabeth Station Farm.

Right of Way Experience: Rose Street Extension, Lexington, 1986-87; AA Highway: Greenup Co., 1989, Carter Co., 1990-91; U.S. 27 Campbell Co. 1991-1992, 1993; Bridge Realignment, Walton, 1992; Industry Rd, Louisville, 1993; 19th St. Bridge, Covington, 1994; U.S. 27, Alexandria, 1994; S. Main St., London, 1995; Paris Pike, Paris and Bourbon County, 1995-98; KY Hwy 22 at I-75, Dry Ridge, 1996; Bridge Projects on KY Hwy 19, Whitley County, 1997; US 150, Danville, 1998; US 460 Morgan Co., 1999; US 62 South, Georgetown, 2000; Bluegrass Pkwy and KY 27 Interchange, Anderson Co., 2001; KY 519, Rowan County, 2002; US 641, Crittenden County, 2005; US 25, Madison County, 2008-09; US 68, Bourbon County, 2009-10; Clark County, 2011; US 68 Millersburg By-pass, Bourbon County, 2012-13; US 119, Bell County, 2014-15; US 25, Madison County, 2016-17; Excess Land, Georgetown By-pass, 2020; Access Break, Industrial Drive, Lebanon, 2020; Excess Land, Bluegrass Parkway and Harrodsburg Road, Lawrenceburg, 2021.

Railroad Right of Way Experience: CSX in Floyd, Perry, Clark, Woodford, Franklin, Montgomery, Johnson, Magoffin, Breathitt, Fayette, Madison, Mason, and Bourbon Counties, 1987-2016.

Rails to Trails: Rowan County, 2005; Montgomery County, 2009, Franklin County, 2014; Floyd County, 2016.

MARY MCCLINTON CLAY
PROFESSIONAL QUALIFICATIONS

Environmental Damage Studies: *Yellow Creek Concerned Citizens v. Middlesboro Tannery*: effect of tannery contamination on 350 properties along Yellow Creek, Bell County, KY, 1988; *James E. Sullivan, et al v. Board of Regents, et al*: effect of Animal Waste Fermentation Project at the Organic Pasteurization Plant at North Farm of Murray State University on Sullivan's Executive Par 3 Golf Course and Sports Center, Murray, KY, 2003; West Farm Subdivision, Pulaski County: effect of contamination of groundwater from underground storage of dry cleaning solvents on residential lot values, 2004; *Gene Nettles, et al v. Environmental and Public Protection Cabinet: Division of Water, David Morgan, Director and J.P. Amberg Hog Farm*: Diminution of Value Analysis As a Result of Proximity to Hog Facilities in Daviess, Warren, Calloway, Graves, Hickman and Carlisle Counties, Kentucky, 2006; *Terry Powell, et al v. Tosh, et al*: Diminution of Value Analysis as a Result of Proximity to Hog CAFOs in Marshall County, KY, 2007; *City of Versailles v. Prichard Farm Partnership, Ltd.*: effect of sewage treatment pump station and ancillary easements upon Woodford County cattle farm, 2008; *Kentucky Utilities Company v. James and Mary Jent, CDH Preserve, LLC and Farm Credit Services of Mid-America, FLC, Violet Monroe*: the effect of High Voltage Transmission Lines on three Hardin County agricultural properties, 2011; *Terrence G. Kerschner, et al v. Burley Oil Company, et al*: the effect of Leaking Underground Gasoline Tanks on Country Lane Estates, Frankfort, KY, 2013; *Jerry Whitson v. Donnie Cross*: effect of Drainage Encroachment upon Adjacent Property, 2013; the effect of Cell Tower on Bourbon County Farm, 2014; *Steve D. Hubbard v. Prestress Services Industries, LLC*: effect of Fugitive Particulate Emissions upon a Single Family Dwelling, 2016; *Henderson City-County Airport v. Mary Janet Williams, et. al.*: the effect of Proximity of a Regional General Aviation Airport on Agricultural Values, 2019; *Patricia Kushino, et al v. Federal Aviation Administration, et al*: the effect of Stormwater Drainage on Woodland Value, 2021.

Additional Damage Studies:

Faulty Construction: 172 Post Oak Road, Paris, KY; 152 Cross Creek Drive, Paris, KY; Hartland Subdivision, Lexington, KY
Flood Damage: 208 Cary Lane, Elizabethtown, KY
Blasting Damage: Chicken Farm, Tolesboro KY
Super Fund Sites: KY Wood Preserving, Inc., Winchester, KY; River Metals Recycling, Somerset, KY
Industrial Scale Solar Farms: "A Summary of Solar Energy Power Systems Damage Studies as of May 25, 2021"

Expert Witness: Circuit Courts of Bourbon, Carter, Fayette, Franklin, Hardin, Laurel and Woodford Counties

Court Testimony:

Laurel Circuit Court: *Yellow Creek Concerned Citizens v. Middlesboro Tannery*, 1995.
Franklin County Circuit Court: *Richard McGehee v. Commonwealth of Kentucky Transportation Cabinet*, 2008; *Terrence G. Kerschner, et al v. Burley Oil Co., et al*, 2014.
Hardin County Circuit Court: *Richard McGehee v. Commonwealth of Kentucky Transportation Cabinet*, 2008.
Woodford County: *Horn v. Horn*, 2009
Bourbon County Circuit Court: Blasting Case, 1980s; Waterway Impediment Case, 2000; Faulty Construction, 2009, *Hadden v. Linville*, 2015.
Fayette County Circuit Court: Faulty Construction, 1980s; Bluegrass Manufacturing (Divorce Case), 1999, *Whitson v. Cross*: Drainage Encroachment, 2013.
Carter County: Condemnation for Commonwealth of KY Transportation Cabinet.

MARY MCCLINTON CLAY
PROFESSIONAL QUALIFICATIONS

Conservation and Wetland Easements: Bluegrass Heights Farm, Fayette County; Conservation and Preservation Easement; Wetland Easements in Pulaski, Lincoln, and Fulton Counties for NRCS.

Zoning Support: Solar Farm Conditional Use Permits: Hardin County, 2022, Clark County 2021; *John Vance, et al v. Paris City Commission* 2019; *Citizens for Progressive Growth and Development v. Paris Bourbon County Planning Commission* 2004-2007 and 2016; *Paris First v. Paris Bourbon County Planning Commission* 2003-2006; *Paris First v. Paris City Commission* 2002-2003; *Coppers Run Historic District, Inc. v. Abundant Life Worship Center* 1995; *Sugar Grove Farm v. East Kentucky Power* 1994-1996; *Lawrence Simpson, et al v. Harry Laytart* 1986-1996.

Professional Organizations:
Appraisal Institute: MAI, 1985; SRPA, 1982; SRA, 1980

Appraisal Institute Education Certification:
The Appraisal Institute conducts a voluntary program of continuing education for its designated members. I am certified under this program through December 31, 2023.

Education: Hollins College, B.A., 1972

Appraisal Education: Society of Real Estate Appraisers Course 101, 1977; SREA Course 201, 1978; SREA Course 301, 1981; AIREA Course VIII, 1979; AIREA Course VI, 1979; AIREA Course II, 1980; AIREA Course in Investment Analysis, 1980; AIREA Course in Valuation Litigation, March, 1986; Appraisal Institute Standards of Professional Practice, 1992; AIREA Comprehensive Examination, August, 1983; Courses in Real Estate Finance, Income Property Appraisal, Real Property Valuation, and Investment Analysis, 1977-1978, Eastern Kentucky University; Appraisal Institute Course 400G, Market Analysis/Highest and Best Use, 2008, Conservation Easement Certification, 2008.

Attended numerous seminars covering a variety of topics including investment analysis, feasibility and market analysis, eminent domain and condemnation, valuation of lease interests, component depreciation, risk analysis, current issues in subdivision and zoning law, Yellow Book and appraiser as expert witness.

**A SUMMARY OF
SOLAR ENERGY GENERATION POWER SYSTEMS
DAMAGE STUDIES
AS OF
JUNE 1, 2022**

Prepared for

Mrs. Denise Spooner
Concerned Solar Neighbors of Madison County
139 W. Oak Street
Alexandria, Indiana 46001

Prepared by

Mary McClinton Clay, MAI
218 Main Street
Paris, KY 40361

June 26, 2022

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CHARACTERISTICS OF UTILITY SCALE SOLAR GENERATING PLANTS

INTERMITTENT ENERGY SOURCE

According to Dr. Donald van der Vaart, former secretary of the North Carolina Department of Environmental Quality (DEQ), “It’s difficult at first to imagine what’s not to like about solar power. The energy used by the solar panels to produce electricity is free. The solar panels don’t emit any air pollution, and they don’t contribute to greenhouse gases that many believe play a role in global warming.”¹

However, solar power is not the panacea that the solar developers claim. Numerous drawbacks are attributed to this source of energy, most notably the **intermittent nature of solar power**. “As Strata Solar disclosed in its application to build a solar farm on Gov. Roy Cooper’s Nash County (NC) property: ‘Solar is an intermittent energy source, and therefore the maximum dependable capacity is 0 MW.’”²

Despite the claim by developers that a solar farm’s generating capacity is X megawatts (MW) of electricity, a solar facility plant won’t generate X MW of energy 24 hours a day, seven days a week. Much of the time it won’t produce anything.³

Engineers who’ve worked with electric utilities say solar facilities generate no power most of the day, and seldom reach peak generation, yet they are marked by how many megawatts of electricity they can produce during the rare times they are at maximum output. The ratings are ambiguous at best, and deceptive at worst, raising significant public policy concerns, engineers say.⁴

It is important for county officials who approve permits for solar facilities to understand that the MW rating should not be interpreted as a constant flow of electricity. In

¹ Donald van der Vaart, “Are counties taking the lead in solar plant pushback?,” <https://carolinajournal.com/opinion-article/>, October 30, 2020.

² Jon Sanders, “Why Aren’t We Benefitting from Falling Costs of Solar,” *Economic & Environment, Energy & Environment*, December 17, 2019.

³ Dan Way, “Solar energy output ratings misleading if not deceptive, critics say,” <https://www.carolinajournal.com/news-article/>, May 20, 2019.

⁴ *Ibid.*

actuality, the rating is only potential—a maximum output that occurs for about one hour around noon on a sunny day. A solar plant generates less than the megawatt rating the other 23 hours, and no power at all the 14 hours of no sun light.⁵

As a result of the intermittent nature of solar plants, electric utilities must keep redundant fossil fuel-fired electric sources operating constantly to fill in immediately when solar power is disrupted by clouds, rain and nightfall. Compounding the cost of generating electricity, the federal Public Utility Regulating Policies Act requires utilities to buy all commercial solar power generated, even if it is more expensive than energy from other sources such as nuclear, natural gas or hydro power.⁶

The following chart from the North Carolina State Solar House represents the intermittent nature of solar energy generation. The plot lines indicate that on mostly cloudy or raining days the house produced less than 10 percent of its maximum rating capacity. A partly cloudy day recorded erratic fluctuations. **The variability of solar output would be the same regardless of a solar facility's size.**

For example, the 60 MW generating plant in Currituck County, North Carolina running at full capacity for the full 8,760 hours in a year would produce 525,600 MWh. However, the available usage is only 146,000 MWh or **27.7 percent of the full capacity** since it generates only when the sun is shining.

COST OF SOLAR ENERGY PRODUCTION INCLUDES BACKUP GENERATION

Properly accounting for the cost of solar energy means including the cost of the backup generation that is required to accompany it. Including these backup costs, the **levelized cost of new solar plants is far more expensive than the levelized cost of existing power plants and nearly three times more expensive than the most efficient—zero-emissions nuclear power plants.**

⁵Ibid.

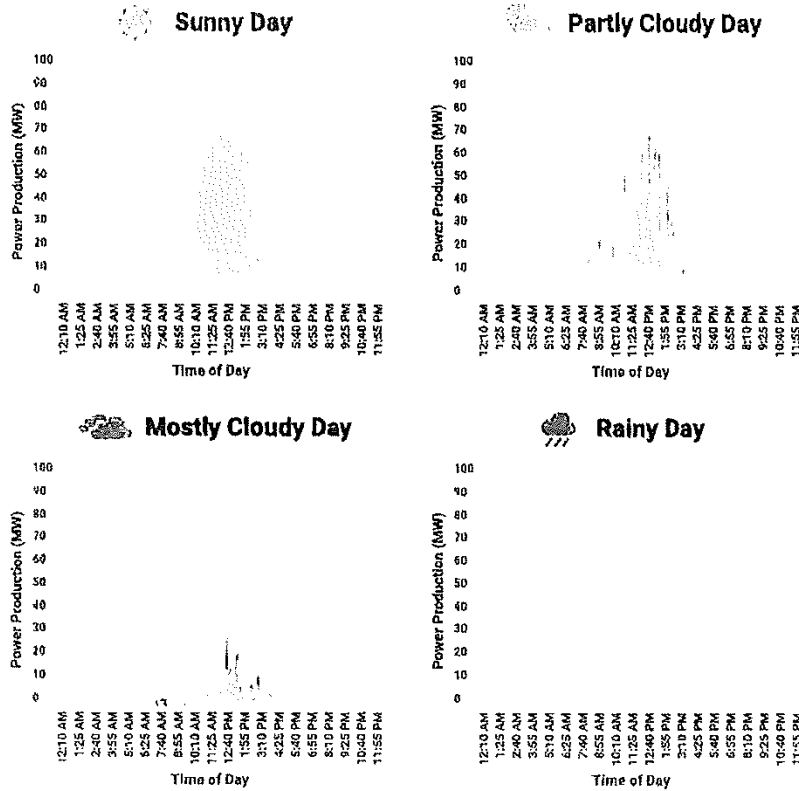
⁶ Ibid.

5/18/2021

Solar and wind: The most power you can rely on getting is nothing - The Locker Room - The Locker

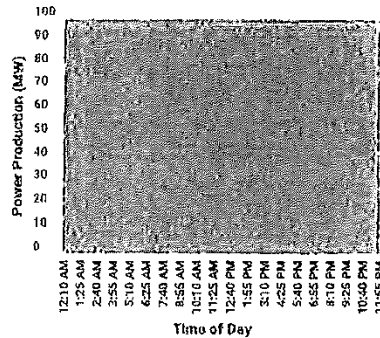
100 MW Solar Farm Production

Engineers who have worked in the electric utility industry say rating solar power plants by the maximum number of megawatts they can produce in peak operating conditions is a deceptive system because they seldom reach that level of output. Solar facilities only generate power six to eight hours a day, and it's far lower than their rating labels. That misleading rating approach leads to wrong assumptions and bad public policy. These plotlines illustrate the difference between rating capacity and actual power production during variable weather conditions. They are based on data captured from the N.C. State University Solar House.



100 MW Conventional Power Plant Production

Coal, Natural Gas, and Nuclear



The conventional power plant illustration shows electricity is generated at full capacity without wild fluctuations throughout the day.

Source: Herb Eckerlin, N.C. State University emeritus professor

Tags: solar (<https://lockerroom.johnlocke.org/tag/solar/>), wind (<https://lockerroom.johnlocke.org/tag/wind/>)

<https://lockerroom.johnlocke.org/2019/05/20/solar-and-wind-the-most-power-you-can-rely-on-getting-is-nothing/>

An example of **increased pollution** due to solar power generation comes from a 2019 Duke Energy permit application.

Under its current permits in the heavily regulated market, Duke must completely shut down the backup combustion turbines when solar peaks under full sun, then restart them when the sun recedes.

Duke wants the N.C. Division of Environmental Quality to issue new permits allowing combustion turbines to throttle up and down from a “low load” idling operation instead of switching completely off and on as solar waxes and wanes. In its permit applications, Duke said that would lower pollutant emissions and reduce stress on machines.

Without any solar power in the mix, ‘a typical combined cycle combustion turbine emits NOx at approximately 9-11 lb./hr., assuming 24 hours of ‘normal’ operation. That is equivalent to 264 pounds of NOx emissions daily. When those same plants are operated to supplement solar power facilities, daily emissions more than double to 624 pound a day, based on a table in Duke’s application.

If DEQ agrees to Duke’s alternate operating scenario, a combustion turbine would emit 381 pounds of NOx daily—still **44% more pollution than operating without any solar power on the grid.**⁷

Compounding the additional cost of backup energy generation is the fact that **a solar farm requires 75 times more land than a conventional plant of the same capacity.**⁸

These factors result in solar energy being an **inefficient** form of electrical generation.

SOLAR ENERGY GENERATION IS FEASIBLE DUE TO INCENTIVES

Solar power is thriving due primarily to the **billions of dollars United States taxpayers and electricity customers have given the industry.**

Federal and state incentives include the requirement that utilities buy all the green power generated by solar farms, whether they need it or not; utilities must meet renewable energy purchase targets; legislatures have **exempt property taxes up to 80 percent** of the

⁷ Jon Sanders, op. cit.

⁸ Dr. Donald R. van der Vaart, “Gov. Cooper’s ‘Clean Energy Plan,’ Part 3: Raising Prices and Polluting Moore?” *Energy and Environment*, September 22, 2020.

appraised value of non-residential solar energy electric systems; and solar developers and investors receive **30 to 35 percent tax credits**.

ENVIRONMENTAL IMPACTS ARE LONG TERM

Despite the claims by the solar developer's and their appraisers that solar farms are not sources of contaminants, California classifies spent **solar panels as hazardous waste**, and research has shown that **heavy metals are leaching out of the solar panels** into surrounding groundwater. Groundwater is often relied upon for drinking water in rural counties.⁹

Used solar panels have many chemical waste components, including such things as gallium arsenide, tellurium, crystalline silicon, lead cadmium and heavy earth minerals. The U.S. Environmental Protection Agency (EPA) confirmed in 2018 that **GenX** and related compounds are **used to produce solar panels**.¹⁰

Among the environmental concerns of industrial scale solar farms is the **lack of state regulations governing the decommissioning** of the facilities and the safe disposal of the solar panels after they wear out. Only five states require a decommissioning plan and that does not include rules—only a plan. In addition, decommissioning bonds are not required by most states.

Solar developers claim much of the material in solar facilities can be recycled to recoup cleanup costs or safely disposed of in landfills. According to Steve Goreham, a climate change and energy expert, “there’s a fair amount of value in recycling solar materials, but it doesn’t come close to cleanup costs.” For example, he said, a 3-megawatt project in Sacramento County, Calif., cost owners \$220,000 to clean up even after they got

⁹ Donald van der Vaart, “Are counties taking the lead in solar plant pushback?,” <https://www.carolinajournal.com/opinion-article>, October 30, 2020.

¹⁰ John Sanders, “Waste problems from wind and solar are why we need proper decommissioning,” <https://www.carolinajournal.com/opinion-article/>, February 18, 2020.

\$375,000 for recycled materials. A 20 MW solar project in Maryland cost \$2.1 million to remove *after* recycling revenue.”¹¹

Because of the steep costs, Goreham recommends **landowners get a decommissioning plan in writing** from solar companies stating they will be responsible for all removal and land reclamation.

NC State Rep. Chris Mills, R-Pender, lead sponsor of NC House Bill 319 requiring proper decommissioning, acknowledged that some solar companies have negotiated 15-year property leases with landowners, after which they transfer ownership of the facilities to the landowner. The companies sometimes claim solar panels will last 40 years, and they don't warn about costs to dispose of the tons of aging materials after they degrade below profitability.

According to Goreham, a solar panel's useful life is 20 to 25 years, when it has degraded to about 80 percent of its productivity.

Without a required decommissioning and a bond to secure it, huge swaths of land could become riddled with dead solar panels, according to Mills. The fear is that this may become the **next Superfund site for the taxpayers.**¹²

INDUSTRIAL SCALE SOLAR HAS POTENTIAL TO DISRUPT AGRICULTURAL ECONOMY

Utility-scale solar energy facilities are increasing the pressure on farming by taking land out of production needed to maintain a delicate economy of scale, viability and profitability. Many county commissioners lack enough knowledge about the complex interplay of solar installations on the economic, ecological, environmental and cultural dynamics of a community as solar companies woo them for siting approvals with promises of jobs and revenue.¹³

¹¹ Dan Way, “Moore County residents worry about solar's long-term environmental impacts,” <https://www.carolinajournal.com/news-article/environmental-hazard/> May 30, 2017.

¹² Ibid.

¹³ Dan Way, “Big solar farms maybe stressing agricultural ecosystem,” <https://www.carolinajournal.com/news-article/>, May 25, 2017.

LOCAL AND STATE REACTION TO THE PROLIFERATION OF INDUSTRIAL SCALE SOLAR PLANTS

NORTH CAROLINA APPROVES HOUSE BILL 329

Until 2019, the renewable lobby had been successful in keeping decommissioning and reclamation for solar and wind facilities out of state law. However, North Carolina passed House Bill 329 that required the Environmental Management Commission to establish rules for the decommissioning of solar and wind plants by January 1, 2022.¹⁴

INDIANA HOUSE BILL 1381 DEFEATED

Recently, the Indiana Legislature proposed House Bill 1381 which attempted to shift local control over the siting of wind and solar farms to the state. For all practical purposes, it stripped local governments of the ability to specify the type of land they want to see as solar farms in their communities. The first version attempted to overrule county ordinances. The bill was defeated by significant citizen objection.

STANLY COUNTY, NC REGULATIONS INTERNALIZES COSTS OF SOLAR FARMS

To internalize the costs of solar power to those who create them, the developers of solar farms, Stanley County's ordinance attempts to reverse the externalization of these costs from the citizens. "Reducing property values of others, causing more air pollution and contaminating ground water are all 'external' costs of solar power; that is the solar companies aren't paying for them—others external to the companies are. Environmental management seeks to 'internalize' those costs, meaning to have the polluting company pay for them."¹⁵

Stanly County's ordinances include the following:

1. To protect landowners, as well as solar companies, baseline groundwater measurements must be taken to determine whether any changes to metal concentrations measured in the future are attributable to the solar plant.

¹⁴ Jon Sanders, op. cit.

¹⁵ Donald van der Vaart, op. cit.

2. To follow up on those pre-construction measurements, the solar plant must monitor groundwater during operation and after the plant is shut down.
3. Solar panels used by the plant are not allowed to contain perfluoroalkyl substances (PFAS), which include GenX.
4. Due to the risk and unusual nature of battery fires, enough resources must be made available to the fire department, including training.
5. Setbacks are required to protect the viewshed of neighboring landowners.
6. A pre-approval study of unique ecological features of the land proposed for the plant can be required at the solar developer's expense.
7. Given that solar developers often form multiple companies that end up undercapitalized and hence unable to pay for the future costs associated with decommissioning of these massive sites, and to ensure resources are available for final disposal after the plant is shut down, a financial assurance is required equal to the greater of \$106,000/installed megawatt (MW) or 150% of the estimated cost of removal.¹⁶

KENTUCKY PROPOSES SENATE BILL 266

During the 2021 session of the Kentucky legislature, Bourbon County Senator Steve West introduced a bill that would amend KRS 100.203 to allow cities and counties to prohibit the construction of photovoltaic power stations on agricultural lands.¹⁷

KENTUCKY LEGISLATURE CREATES SITING BOARD

The Kentucky State Board on Electric Generation and Transmission Siting (the Siting Board) was created in 2002 by an act of the Kentucky General Assembly. Its purpose is to review application and, as appropriate, grant certificates for the construction of electric generating facilities and transmission line that are not regulated by the Kentucky Public Service Commission.

Siting Board review focuses on three areas:

- Environmental matters not covered by permits issued by the Kentucky Department for Environmental Protection. The Siting Board review covers matters such as noise, visual impacts and **property values**.

¹⁶ Ibid.

¹⁷ <https://apps.legislature.ky.gov/record/21rs/SB266.html>

- Economic impacts.
- Impact of the proposed facility on Kentucky's electric transmission grid.

DAMAGE STUDY THEORY AND METHODOLOGY

DAMAGE STUDY THEORY

Real estate values are estimated by the application of three approaches to value—the market comparison, cost and income approaches. When real estate is damaged or impaired, an additional analysis is required which changes an appraisal to a damage study.

The term *unimpaired* value refers to the value of the property as if no detrimental condition exists, while the term *impaired* value reflects the value of the property with the detrimental condition. The difference between these two values is the amount of damage.

Solar Energy Generation Power Systems (SEGPS) impacts the value of proximate properties to the extent that the SEGPS is viewed, in the market, as a negative externality. As an externality, it is typically not considered to be economically “curable” under generally accepted appraisal theory and practice. Some of this loss in value may be attributable to stigma, when there are unknowns and risk associated with ownership of the property.¹⁸

From an economic perspective, the rights enjoyed by a fee-simple¹⁹ owner fall into three categories: (1) right of use and enjoyment; (2) right of exclusion;²⁰ and (3) right of transfer. In the United States, property itself is not “owned,” but rather the rights of the property are owned. The ability to delineate these rights and the ability of owners to transfer some or all these rights voluntarily is a necessary condition for property valuation.

The right of use and enjoyment is generally interpreted to mean that the owner may determine how property will be used, or if it is to be used at all. The right of use traditionally is limited by both public restriction (e.g., eminent domain, police power) and private restriction (e.g., liens, mortgages). Private restrictions are generally voluntary, and property

¹⁸ Kirkpatrick, John A., “Concentrated Animal Feeding Operations and Proximately Property Values,” *The Appraisal Journal*, (July 2001): 301.

¹⁹ Definition of Fee Simple: Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat. *The Dictionary of Real Estate Appraisal*, 6th ed., s.v. “fee simple estate.”

²⁰ Definition of Exclusion: Denial of Entry or Admission. Black’s Law Dictionary, 6th ed., s.v. “exclusion.”

owners willingly submit to the disutility of such restrictions in trade for some other economic benefit.

Impairment often places a restriction on the right of use without some economic compensation. This is illustrated in the potential restriction that may be placed on the use of real estate due to a physical impairment and can thus limit the property to something less than its highest and best use. For example, odor or flies from a nearby animal operation or dust from an adjacent cement plant will restrict the use and enjoyment of impaired property without compensation.

The right of exclusion—often called the right of exclusive use or right of exclusive enjoyment—provides that those who have no claim on property should not gain economic benefit from enjoyment of the property. In other words, the right of use is exclusive to the property owners, and any violation of the right of exclusive use typically carries either payment of compensation to the rightful owner or assessment of a penalty. Physical impairment, such as odor, flies, noise or dust, in effect, is a trespass on property rights and violates the right of exclusion.

The right of transfer provides the owner with the ability to swap one resource for another. An impairment restricts the right of transfer and may destroy the right of transfer altogether.

Real estate value is a function of the **perception of the participants within the market**. All factors that influence a property's desirability, and therefore, its value is the result of the market's perception. Richard Roddewig noted that:

Appraisers must look to the marketplace for answers and analyze what the marketplace itself is actually saying. Scientific conclusions about persistence of contaminants do not necessarily correlate with the marketplace's conclusion about the duration of economic impact on real estate.²¹

²¹ Richard J. Roddewig, "Temporary Stigma: Lessons from the Exxon Valdez Litigation," The Appraisal Journal (January 1997): 100.

Not only are property values diminished by environmental problems, but property owners are also denied opportunity costs stemming from the inability to move. Homeowners, for example, are stuck holding houses unable to be sold with stagnate prices, while homes in other neighborhoods are selling at increasing values. Thus, the owners are **harmed not only by the diminution of value** in the existing residence, but by the **opportunity costs inherent in lost gains** from alternative home investments.

In studying the “most likely impact” of SEGPSs on real estate, it should be recognized that there are outlying extremes. Like many detrimental conditions, there is a segment of the market that appears to be almost immune to the effects, while at the opposite extreme there is often a segment that will not purchase a property at any cost that is impacted by a detrimental condition.²²

DAMAGE STUDY METHODOLOGY

The primary source of chronicled methodology regarding damage studies is the Third Edition of *Real Estate Damages* published by the Appraisal Institute and written by Randall Bell, PhD, MAI.

Like all appraisal related analyses, damage studies are predicated on empirical research of data derived from the market. According to Randall Bell:

Applications of empirical research in real estate include the collection of transactional market data, such as sale or lease comparables, vacancy rates, expenses and capitalization rates. A key benefit of empirical research methods such as comparable sales is that tests can be replicated and measurements can be tested and validated or invalidated by others. A negative aspect of empirical studies is that they can lack the “story behind the data” and are only as good as the data relied upon.

In real estate valuation, empirical data is essential for use in the sales comparison, income capitalization and cost approaches. This data is also required for both simple and multiple

²²²² Randall Bell, “The Impact of Airport Noise on Residential Real Estate,” *Appraisal Journal* (July 2011): 318.

regressions. Case studies can be a valid means of empirical research. These are all staple valuation methodologies.²³

Regarding specific applications of the sales comparison approach for damage studies is the use of **paired sales analysis**. This methodology consists of comparing the subject property or similarly impacted sales by a detrimental condition, known as test areas, to unimpaired properties in control areas. A comparison can also be made of the subject property before and after the identification of the detrimental condition. The latter is known as a **sale-resale analysis**.

According to Randall Bell:

If a legitimate detrimental condition exists, there will likely be a measurable and consistent difference between the two sets of market data; if not, there will likely be no significant difference between the two sets of data. This process involves the study of a group of sales with a detrimental condition, which are then compared to a group of **otherwise similar sales** without detrimental condition. As with a conventional appraisal, care should be taken by the appraiser or analyst when using a paired sales analysis in a sale-resale context to consider and adjust for any major alternations or renovations made to the properties after the first sale but before the subsequent sale.²⁴

Although the trend to industrial scale solar farms is relatively recent and data is limited, it is even more relevant to analyze all the available data as thoroughly as possible. The most recent publication by Randall Bell, MAI, PhD numerates the methods available to the appraiser for such damage studies:²⁵

The Appraisal of Real Estate, 15th Edition, under the section "Contamination and Environmental Risk Issues," outlines the use of paired sales, case studies, multiple regression and adjustments of income and yield capitalization rates on income-production properties. **In addition** to those methodologies, an appraiser can consider using sale/resale, simple regression, market surveys, literature review, foreclosure rates, sales volume, days on market, listing discounts, mortgage rate adjustments, insurance adjustments, project delay and other methods.

The following is the correct methodology for a damage study.

²³ Randall Bell, PhD, MAI, *Real Estate Damages*, 3rd edition, (Chicago, Appraisal Institute, 2016): 9.

²⁴ *Ibid.*: 33.

²⁵ Randall Bell and Michael Tachovsky, "Real Estate Damage Economics: The Impact of PFAS "Forever Chemicals" on Real Estate Valuation," *Environmental Claims Journal*, 2021: 11-12.

1. The first step is to determine the area affected by the detrimental condition. Once the area of influence is determined, this may be expanded as the research progresses.
2. The second step is to determine a control area that is not near a solar farm. This location is not only free of any influence from the disamenity, but it represents a competing area to the subject area with respect to land and improvement values, demographics and other economic and environmental factors that make the two groups interchangeable with the exception of the disamenity.
3. The third step is to collect the sales data. This includes useful data on either side of the date of knowledge or appearance of the detrimental condition.
4. Once the data has been gathered the sales need to be analyzed with respect to value change (appreciation or depreciation) for the years prior to the event and then after the event. This will determine how the overall community or neighborhood responded to value change, as well as the control area and the subject area. Any difference between these market movements could be attributable to the disamenity. Increased time on the market and decreased sales volume are also indicators of diminution of market value. In addition, proximity to solar farms may affect the absorption rates of vacant lots.
5. After the sales are gathered, they need to be confirmed with a principle to the transaction. It is paramount to gain an understanding of the motivation behind a sale and to determine if it is indeed an arms-length transaction. Any of the latter sales or bank involved sales must be eliminated from the sample.
6. The cleanest way of analyzing paired sales is on a one to one basis since it avoids comingling sales that could lead to distortion. Sale-resales of the same property both before and after the event are alternative indicators.
7. If a large amount of sales data is available a multiple regression analysis is an alternative or an addition to the above methodology.
8. In the absence of actual sales, buy resistance is an important consideration. Means of measuring this includes reductions in listing price, days on the market or withdrawals from the market, concessions, etc.

Case Studies are another useful method for documenting damage studies. According to Randall Bell:

A case study approach can be advantageous when there is a lack of direct market data or where analyses of direct market data need additional support...In that case, a case study approach enables an appraiser to study an otherwise similar situation with informed market data and draw on those findings to develop opinions about the subject area.

When applying the results of environmental case studies, an appraiser should consider whether the case studies are similarly situated with respect to the subject property(ies) and the environmental condition. However, when performing a case study, the similarly situated property(ies) do not need to be in the same area as the subject property(ies). Data limitations usually necessitate searching a broad geographical area. In case studies and mass appraisals, things do not have to be identical or similar; its rare, if not impossible, to find identical case studies. The objective is to find case studies that are similar on some meaningful level.²⁶

Regardless of the method of analysis, the data must reflect the actions of the market. Although the following quote is from a recent *Appraisal Journal* article on PFAS contamination, “solar farms” can be substituted for the word “contamination” because the statement is also applicable to solar farms.

In the context of property valuation, contamination falls under the umbrella term of detrimental conditions. Although detrimental conditions can significantly complicate a valuation assignment, the presence of a detrimental condition does not necessarily result in property value diminution. This distinction is central to the valuation of contaminated real estate. The question that the appraiser attempts to answer is not whether the detrimental condition exists, but rather how much weight the market gives to the detrimental condition relative to the aggregate of the other factors that influence value. It is possible that the detrimental condition is so great that markets may consider a property “no-go” until it has been remedied, but likewise, it is possible that market may ascribe little, if any, discount to environmental contamination. **Whatever the outcome, an appraiser’s analysis and determination of the price of risk, if present, must be based on the analysis of relevant transactional market data and not simply an assumption.**²⁷

²⁶ Bell, *Ibid.*: 17.

²⁷Orell C. Anderson MAI, et al, “PFAS Contamination and Residential Property Values: A Study of Five US Sites within the Assessment Stage of the Remediation Lifecycle,” *The Appraisal Journal*, Winter 2022: 26.

DETRIMENTAL CONDITIONS

A detrimental condition is also known as an external obsolescence. The Bell Chart of 10 Classifications of Detrimental Conditions (DC) has become an industry standard for the analysis of damage studies. Class V detrimental condition applies to industrial scale solar systems.

According to Bell, Class V—Imposed Condition is defined as:

Adverse external factors, eminent domain, undesirable acts or forced events by another person or entity constitute Class V conditions... Examples of adverse external factors are dumps, landfills, factories that produce noise and bad odors, neighbors that allow their property to deteriorate and transmission lines. They may also include the discovery that improvements were illegally constructed, or the development of surrounding nuisances (or perceived nuisances) such as a sewer treatment plant, airport noise, or a prison.

Graphically, Class V often reflects a sudden drop in value upon the occurrence of the DC and a **permanent loss in value** as a result of the imposed condition.²⁸

ZONING AND INCOMPATIBLE LAND USES

Chief among the characteristics of a detrimental condition is the concept of incompatible land uses, particularly as industrial solar facilities relate to agricultural zoning.

Until recent years, uses within the agricultural zone were limited to farming related pursuits. For example, the Bourbon County, Kentucky zoning ordinance lists uses permitted in the Agricultural Zone (A-1) as:

- A. Production of agricultural, horticultural, floricultural or viticultural crops or livestock commodities and incidental retail sales by the producer of these commodities raised on the site.
- B. Single-family dwellings occupied by the owner or operator of the farm and such additional single-family dwellings as are necessary for occupancy by the employees of the farm operation.

²⁸ Randall Bell, MAI, "The Impact of Detrimental Conditions on Property Values," *Appraisal Journal*, October 1998: 384-385.

- C. Public, semi-public, and private land for open-space reserves that may be permanent open spaces or for future development in accordance with this order.
- D. Home occupancies as defined and restricted in Section 1.8 herein. No home occupation shall be permitted with changes the appearance of the structure from that of a residence.

Additional uses, such as cemeteries, churches, museums, animal hospitals, country clubs, etc. are permitted by Conditional Use approved by the Board of Adjustment. Any other use is a **non-conforming use**.²⁹ According to Edward J. Holmes, AICP, one of Kentucky's most recognized planners:

It should be noted that although some uses are non-conforming, there still could exist **uses that should be prohibited or considered incompatible** when it comes to **encroachment into areas designated for agricultural use**. Uses that should be considered would be those uses that tend to either significantly interfere with agriculture operations or are negatively affected by generally accepted agriculture practices on neighboring lands.

Taking into consideration the value and significance of agriculture in the community policies and regulations should be enacted that protect agriculture land and minimize land use conflicts with prohibited, non-conforming or incompatible uses. This can be implemented through development and zoning regulations.

A community should make efforts through comprehensive land use planning to protect soils that are most suitable for agriculture and directing other development or encroachment uses to non-suitable soils, and areas adjacent to or near urbanized lands, while maintaining continued use of the prime agricultural areas.

It is important to protect agricultural lands by retaining and protecting a critical mass of agricultural land that promotes effective and efficient agricultural activities. **More intensive development or uses of lands should be located away from prime agricultural lands that have not been planned for future growth and development.**³⁰

²⁹ Definition of Non-conforming use: Improvements that are not in line with surrounding uses, such as a jail in the middle of a residential neighborhood. Randall Bell, PhD, MAI, *Real Estate Damages*, 3rd Edition, (Appraisal Institute, Chicago, 2016).

³⁰ Edward J. Holmes, AICP, President, EHI Consultants, Lexington, KY.

A non-conforming use in the agricultural zone has the potential of negatively impacting the value of adjacent properties as a result of its lack of compatibility³¹ and risk of hazard or nuisance. In other words, **compatibility maximizes real estate values, and in the reverse, incompatibility diminishes market value.** Any issue or condition that may cause a **diminution of value to real estate is defined as a detrimental condition.**³²

Because utility scale solar plants are relatively new local existing comprehensive plans and ordinances do not provide for them. The **American Planning Association (APA)**, in its advisory regarding utility scale solar facilities, states that “the emphasis for planners is on the direct land-use considerations that should be carefully evaluated (e.g. **zoning, neighbors, viewsheds and environmental impacts**).”³³

According to APA, “Utility-scale solar facility proposals must be carefully evaluated regarding the size and scale of the use; the conversion of agricultural, forestry or residential use; and the potential environmental, social and economic impacts on nearby properties and the area in general.” For example, “if a solar facility is close to a major road or cultural asset, it could affect the **viewshed and attractiveness of the area.**”³⁴

Among the land use impacts noted by the APA that utility scale solar may have on nearby communities include “the removal of forest or agricultural land from active use. An argument often made by the solar industry is that this preserves the land for future agricultural use, and applicants typically state that the land will be restored to its previous condition.” However, the APA acknowledges that it is “challenging” to restore. The organization also notes that, “it is important that planners consider whether the **industrial nature** of a utility scale solar use is **compatible** with the locality’s vision. The **use of**

³¹ Definition of compatibility: The concept that a building is in harmony with its uses and environment. Dictionary of Real Estate Appraisal, 5th Edition.

³² Bell, op cit.: 458.

³³ Darren Coffey, AICP, “Planning for Utility-Scale Solar Energy Facilities,” September/October 2019: 2.

³⁴ Ibid.: 3.

primefarmland and ecologically sensitive lands (e.g. riparian buffers, critical habitats, hardwood forests) for these facilities should be **scrutinized**.³⁵

According to the APA:

Solar facilities can be appropriately located in areas where they are **difficult to detect**, the **prior use** of the land has been **marginal** and there is no designated future use specified (i.e., not in growth areas, **not on prime farmland** and **not near recreational or historic areas**). Proposed facilities adjacent to corporate boundaries, public rights-of-way or recreational or cultural resources are likely to be more controversial than facilities that are well placed **away from existing homes**, have natural buffers and don't change the character of the area from the view of local residents and other stakeholders.³⁶

Tourism is recognized as a key sector for economic growth in many regions and any utility-scale solar facilities might be visible from a scenic by-way, historic site, recreational amenity, or similar resources could have **negative consequences** for those tourist attractions.³⁷

The APA acknowledges that “**negative impacts to property values are rarely demonstrated and are usually directly addressed by applicants as part of their project submittal.**”³⁸

EVIDENCE OF DETRIMENTAL CONDITIONS FROM THE MARKET CONTAMINANTS

The solar panels contain toxic materials such as cadmium telluride, lead and chromium and other toxic materials. Among the problems with such toxins, is that most solar panels are manufactured in China, where the manufacturing process is beyond the United States' control and the panel composition is often unknown. Moreover, current zoning applications do not require that the solar developer identify the source of the panels or the model number.

³⁵ Ibid.: 4.

³⁶ Ibid.: 4.

³⁷ Ibid.: 7.

³⁸ Ibid.: 7.

GenX: Among the most concerning contaminants in solar panels is GenX. According to a DuPont marketing publication:

DuPont Teflon **fluoropolymer films are ideal as protective sheets for solar modules** because they have a unique balance of properties. They are smooth, flexible, lightweight, and long lasting with superior power output. Teflon films also have proven performance in both solar thermal and **photovoltaic (PV) applications**, offering a preferred, technologically advance alternative to traditional glass.”³⁹

This contaminant was first identified in 2015 in the Cape Fear River downstream from a DuPont chemical plant, the Fayetteville Works, where it had polluted drinking water supplies and private wells. According to an EPA physical scientist, Dr. Mark J. Strynar, “GenX technically is not a chemical but rather a chemical process. The GenX process produces two PFAS (perfluorinated alkylated substances) compounds commonly referred to as FRD903 and FRD 902...and the GenX chemicals are included in the broad classification of PFAS compounds.”⁴⁰ According to the EPA, “PFASs (which include GenX precursors PFOA and PFOS and the GenX chemical) are in a class of man-made chemicals not found naturally in the environment... Both chemicals are very persistent in the environment and in the human body when exposure occurs... The long-term health effects of chemicals related to the GenX process in humans is unknown, but studies submitted to the EPA by DuPont from 2006 to 2013 show that it caused tumors and reproductive problems in lab animals.”⁴¹ Dr. Strynar has confirmed that certain PFASs are used in the production of solar panels by documenting 39 records from the SciFinder database used by the EPA to identify applications of PFAS with solar panels. Dr. Strynar has concluded that solar panels have the capacity to be sources of PFAS.

Reportedly, PFAS leach out continuously over their life. Among the drawbacks of the toughness of PFAS is that the chemical degrades slowly, if at all, once it is released into the

³⁹ DuPont, “DuPont Teflon Films for Photovoltaic Modules: Lightweight, Long Lasting, Flexible Films Offer Greater Power Output;” December 2006.

⁴⁰ Donna, King, “Solar panels could be a source of GenX and other perfluorinated contaminants; Environmental group has revealed PFAS contamination in 11 counties in N.C.,” North State Journal, February 19, 2018.

⁴¹ Ibid.

environment. It is also unaffected by most drinking water treatment. In 2017, the Cape Fear Public Water Utility Authority filed a federal lawsuit against DuPont and Chemours for polluting water, river sediments, soil and air.⁴²

One of the first to raise concerns about GenX in solar panels was with state Utilities Commissions were the neighbors opposing the industrial-scale Wilkinson Solar Plant in Beaufort County. They expressed “concerns about toxic chemicals, fluids, and substances leaking into the soil and groundwater as solar installations age and deteriorate or suffer damage from windstorms or other disasters.”⁴³

In addition to citizen concern, “Donald van der Vaart, former secretary of the N.C. Department of Environmental Quality, who holds a doctorate in chemical engineering, sees reasons for concern given North Carolina’s more than 7,500 solar installations. ‘North Carolina’s solar power capacity is now the second highest in the nation. **EPA researchers recognize that solar panels may be a source of GenX compounds...** I would expect Duke Energy and the Public Utilities Commission would want to see test results to protect them from future liability.”⁴⁴

“Noting that GenX ‘may present an unreasonable risk of injury to human health and the environment,’ EPA requires that the company keep 99 percent of the potential pollutants from entering the environment.”⁴⁵

On February 14, 2019, the EPA unveiled the Agency’s Per- and Polyfluoroalkyl Substances (PFAS) Action Plan to identify, monitor and define clean up strategies for these substances. **The action plan is the most comprehensive cross-agency plan to address an emerging chemical of concern ever undertaken by the EPA.**⁴⁶

⁴²Catherine Clabby, “Local Scientists Uncovered Cape Fear GenX Story,” *NC Health News*, October 18, 2017.

⁴³ Dan Way, “EPA confirms GenX-related compounds used in solar panels,” *CJ Exclusives*, August 27, 2018.

⁴⁴ *Ibid.*

⁴⁵ Vaughn Hagerty, “Chemours vows to reduce pollutants, but concern persist downstream,” *Carolina Public Press*, January 5, 2018 newsobserver.com.

⁴⁶ U.S. Environmental Protection Agency News Release, February 26, 2020, “EPA Releases Action Plan: Program Update.”

Subsequently, On February 26, 2020, the EPA (U.S. Environmental Protection Agency) issued an update on the Action Plan. Listed among the key highlights from the past year include:

- On February 20, 2020, EPA issued a supplemental proposal to ensure that new uses of certain persistent long-chain PFAS chemicals in surface coatings cannot be manufactured or imported into the United States without notification and review under TSCA
- On November 22, 2019, EPA announced availability for \$4.8 million in funding for new research on managing PFAS in agriculture.⁴⁷

Solar farms with their thousands or millions of solar panels are of concern to the EPA because they concentrate the PFAS source in a relatively small area. In other words, a single panel may not be a problem, but a large collection of them changes the equation.

Zinc: Many solar panels are supported by galvanized steel platforms. The steel oxidizes over time and releases zinc into the soil, which can be toxic to plants at certain levels. Zinc is also detrimental to micro-organisms in the soil. Therefore, the impact of zinc is on and below the surface of the soil compounding the poor prospects of potential future reclamation of the land.

EROSION

One of the most dramatic examples of erosion is the result of the construction of a 500 MW SEGPS on 6,300 acres in Spotsylvania County, Virginia by sPower. Michael O'Brier, whose property has been impacted by the project was cited in one of the project's zoning violations. According to Mr. O'Bier, "it's been a war zone." Impacts from construction of the project range from muddy runoff streaming through his property to having portable toilets placed across his property line by the developers get submerged in muddy water after a rain storm.⁴⁸

⁴⁷ Ibid.

⁴⁸ Mark Hand, "Solar Farm's Construction Upsets Spotsylvania Residents: Report," *Patch*, January 29, 2020.

As a result of the damage to Mr. O'Bier's farm the solar developer, Sustainable Property Holdings, LLC, purchased his 3.00 acre property on June 8, 2020 for \$460,000. The assessed value at the time of sale, according to the deed, was \$231,200. The tax map parcel number is 17-2-10A and the transaction is recorded Instrument #200011260.

Other serious erosion problems have occurred in Virginia, most notably in Essex and Louisa Counties. The 200.00 acre 20 MW Essex Solar Center off US Hwy 17 (Tidewater Trail at Muddy Gut Road), as a result of clear cutting and excavation experienced a sediment runoff problem shortly after it opened in 2018. In Louisa County, Dominion Energy's Belcher Solar Project has experience excessive stormwater runoff that has negatively impacted adjacent properties.

Soil scientists note that "the data shows that solar panels 'channelize water,' causing it to leave the site faster, and infiltrate neighboring properties. Some farmers have confirmed their fields became wetter than before the placement of a nearby solar facility, and they were having difficulty getting in to till their land to prepare it for the growing season."⁴⁹

Tree removal results in barren land whose topsoil is removed and compacted, along with frequent mowing to control vegetation compacts the soil and leads to the soil being resistant to absorbing water.

VIEWSHED

Unlike most adverse influences upon adjacent properties that have a direct impact upon their utility to function (noise, odor, contaminants, traffic, etc.) **SEGPS's predominant impact is to the viewshed.**

Real Estate appraisers recognize that view affects property value. According to *The Appraisal of Real Estate*, "The physical characteristics of a parcel of land that an appraiser must consider are size and slope, frontage, topography, location and view."⁵⁰

⁴⁹ Dan Way, "Big solar farms may be stressing agricultural ecosystem," <https://carolinajournal.com/news-article/>, May 25, 2017.

⁵⁰ Appraisal Institute, *The Appraisal of Real Estate*, 11th Ed. (Chicago, Illinois: Appraisal Institute, 1996): 323.

View Characteristics

“A view is normally considered a scene or outlook from a property. Views of bodies of water, city lights, natural settings, parks, golf courses and other amenities are considered desirable features, particularly for residential properties. Such desirable views are typically an enhancement to value. In some cases, however, a view can be considered a negative attribute. A vista of incompatible land, dilapidated buildings, junk vehicles and other **undesirable features can be detrimental to value**. Allegations of **value diminution** most often arise from situations in which the **view is altered or changed**. Examples might include the blockage or obstruction of a desirable view or the creation of an undesirable view. The rezoning of a neighboring property to allow for an undesirable land use could legitimately result in a negative impact on value when such rezoning was not known or anticipated on the date of value.”⁵¹

Ultimately, issues relating to view diminution are dependent on relevant market data. The value of an obstructed view can be measured by the difference between properties with and without similar views.⁵²

“View diminution, therefore, is any impact on the ability to see or be seen that is perceived by the market as negative. As usual, **what the market considers to be a negative impact depends on the actual property in question.**”⁵³

The impact of views upon property values has been studied extensively for the past 25 years. These studies have indicated a range of marginal price effect for homes abutting amenities such as lakefront vacant lots: 91.00 to 223.00 percent; ocean front lots: 47.00 to 147.20 percent; lake front 7.50 to 126.70 percent; golf course vacant lots: 7.00 to 85.00 percent; rivers/streams: 3.00 to 54.4 percent; forest/farms: 1.50 to 35.00 percent; golf course:

⁵¹ Bell, *Ibid.*: 146.

⁵² *Ibid.*

⁵³ Anderson, *Ibid.*: 28.

7.00 to 28.00 percent; trails and greenways: 3.40 to 20.20 percent; and urban parks: 1.00 to 20.00 percent.⁵⁴

“Clearly, **view amenities are valuable**, and different types of good views can have significantly different quantitative effects on property values.”⁵⁵

With respect to the **intrusion of SEGPSs into the landscape, what happens when desirable views are blocked?** “In real estate, a view can generally be defined as the ability to see or be seen. View diminution, therefore, is any impact on the ability to see or be seen that is perceived by the market as negative.”⁵⁶

“Since views from a residential property often carry a large premium, **changes to a desirable view may be perceived by the market as having a negative impact on value.** When a desirable view is blocked, the question of damages is often a question of abutter’s rights—a property owner’s rights to air, light, view, visibility and access.”⁵⁷

This concept is particularly significant in areas where the market is largely driven by the scenic landscape, such as the inner Bluegrass and historic districts.

Central Kentucky Market

With respect to market expectations, the counties that constitute the Lexington Metropolitan Statistical Area (MSA) including Bourbon, Fayette, Woodford, Jessamine, Scott, and Clark constitute a significant portion of what is uniquely and geographically known as the Inner Bluegrass. This highly fertile area has been **recognized since the antebellum period** as a center for breeding quality livestock, especially thoroughbred racehorses. Not only does the area have a reputation going back over two hundred years, but **the breath of its reputation extends world-wide.** In fact, in 2006, **the World Monument Fund included the Bluegrass region on its global list of 100 most endangered sites.**

⁵⁴ Jay Mittal, “Valuation Capitalization Effects of Golf Courses, Waterfronts, Parks, Open Spaces, and Green Landscapes—A Cross Disciplinary Review,” Auburn University, *JOSRE*, Vol. 8. No. 1, 2016: 62.

⁵⁵ James R. Rinehart, PhD. and Jeffery J. Pompe, PhD., “Estimating the Effect of a View on Undeveloped Property Values,” *Appraisal Journal*, January 1999: 61.

⁵⁶ Orell Anderson, MAI, “The Value of a View,” *Right of Way*, March/April 2017: 28.

⁵⁷ *Ibid.*: 28.

Few agricultural regions of the country have a real estate market demand that spans the globe. This is not only true because of the fertility of the soil, but the beauty of the landscape. Despite its threat due to development, the surrounding natural landscape is enhanced by the manicured condition of thoroughbred farms that populate the entire area. **This unique, protected and scenic landscape is a large component of the property characteristics that constitute demand for the land. As a result of the scenic viewsheds** roadways throughout the region are designated by the state as **scenic byways**.

As further indication of the emphasis the region places on the preservation of agricultural lands, farm owners have placed approximately **70,000 acres under conservation easements** in the area and **Bourbon County**, to the north, has **six rural historic districts**—more than any other county in Kentucky.

Other areas of Kentucky and throughout the United States have unique landscapes that are inherent determinants of real estate demand and value.

Alternative Detrimental Conditions Can Be a Proxy for Solar Farms

Although only limited peer reviewed published studies of solar farms currently exist, studies of the impact of high voltage transmission lines have the most reliance to the impact of solar farms on surrounding property.

Of the “three critical drivers of HVTL effect on residential property values that are generally assumed—proximity, visibility and encumbrance,” the first two apply to solar farms.⁵⁸

“The two concerns of aesthetics and property values are intrinsically linked. It is well established that a **home’s value will be increased if high-quality scenic vista** is enjoyed from the property (e.g. Seiler, et al, 2001). Alternatively, it is reasonable to assume that if a home’s scenic vista overlaps with a **view of a disamenity, the home might be devalued**, as has been found for high-voltage transmission lines (HVTL) (Kroll and Priestly, 1992;

⁵⁸ James A. Chalmers, “High-Voltage Transmission Lines and Residential Property Values in New England: What Has Been Leaned,” Appraisal Journal, Fall, 2019: 266.

DesRosier, 2002)...Additionally, there is evidence that proximity to a disamenity , even if that disamenity is not visible and is not so close to as have obvious nuisance effects, may still decrease a home's sales price, as has been found in the case for a land fill (Thayer et al., 1992).”⁵⁹

The 2002 published study by Des-Rosier measured how views of a disamenity affected sales prices. This study found that **homes adjacent to a power line and facing a HVTL tower sold for as much as 20.0 percent less than similar homes that are not facing a HVTL tower.**”⁶⁰

Solar farms could be substituted for wind turbines in the following observation from the Hoen study:

It is unclear how well the hedonic literature on other disamenities applies to wind turbines, but there are likely some similarities. For instance, in general, the existing literature seems to suggest that concerns about lasting health effects provides the largest diminution in sales prices, followed by concerns for one's enjoyment of the property, such as **auditory and visual nuisances** (emphasis added), and that all the effects tend to fade with distance to the disamenity – as the perturbation becomes less annoying.⁶¹

Among the arguments currently espoused by the solar industry to minimize the significance of the viewshed is that, “no one is **entitled** to a view.” However, this opinion is contrary to that of the Federal National Mortgage Association (FNMA, Fannie Mae). As one of the two largest purchasers of mortgages in the secondary market, along with the Federal Home loan Mortgage Corporation (Freddie Mac), the view is considered to be one of the property characteristics that their appraisers are required to consider, as indicated on the following FNMA Residential Appraisal Report adjustment grid.

⁵⁹ Ben Hoen, et al, “The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-site Hedonic Analysis,” Ernest Orlando Lawrence Berkley National Laboratory Publication No. LBNL-289E, December 2009: 52.

⁶⁰ Ibid.: 55.

⁶¹ Ibid.: 55.

Residential Appraisal Report

File No. maryclay

FEATURE	SUBJECT			COMPARABLE SALE NO. 1			COMPARABLE SALE NO. 2			COMPARABLE SALE NO. 3					
Address															
Proximity to Subject															
Sale Price	\$			\$			\$			\$					
Sale Price/Gross Liv. Area	\$	sq. ft.		\$	sq. ft.		\$	sq. ft.		\$	sq. ft.				
Data Source(s)															
Verification Source(s)															
VALUE ADJUSTMENTS	DESCRIPTION			DESCRIPTION			+(-) \$ Adjustment			DESCRIPTION			+(-) \$ Adjustment		
Sale or Financing															
Concessions															
Date of Sale/Time															
Location															
Leasehold/Fee Simple															
Site															
View															
Design (Style)															
Quality of Construction															
Actual Age															
Condition															
Above Grade	Total	Bdms.	Baths	Total	Bdms.	Baths	Total	Bdms.	Baths	Total	Bdms.	Baths			
Room Count															
Gross Living Area	sq. ft.			sq. ft.			sq. ft.			sq. ft.					
Basement & Finished Rooms Below Grade															
Functional Utility															
Heating/Cooling															
Energy Efficient Items															
Garage/Carport															
Porch/Patio/Deck															
Net Adjustment (Total)				<input type="checkbox"/> + <input type="checkbox"/> -	\$		<input type="checkbox"/> + <input type="checkbox"/> -	\$		<input type="checkbox"/> + <input type="checkbox"/> -	\$				
Adjusted Sale Price of Comparables				Net Adj.	%		Net Adj.	%		Net Adj.	%				
				Gross Adj.	%	\$	Gross Adj.	%	\$	Gross Adj.	%	\$			

SALES COMPARISON APPROACH

SOLAR ENERGY GENERATION POWER SYSTEMS DAMAGE STUDIES

Because the proliferation of SEGPSs is relatively recent, both peer reviewed journal articles, as well as professional appraisal studies concerning the subject are limited. However, the following currently available data document the adverse effect of SEGPS and their negative impact on property value.

PEER REVIEWED JOURNALS

UNIVERSITY OF TEXAS STUDY

The first study to discuss any diminution in value as a result of proximity to SEGPSs is a May 2018 study conducted by economists at the LBJ School of Public Affairs at the University of Texas at Austin.⁶² This Policy Research Project “investigates where large solar installations are located, the housing and income characteristics of the surrounding areas, and if the installations affect nearby residential properties.”⁶³ The study area ranged from a 100.00 foot to 3.00 mile radius from solar facilities ranging from 1MW to 100MW+.

The study was based on geospatial analysis and a survey of residential property assessors’ opinions of the impact. The respondents included both assessors who have “and have not assessed nearby solar installations.”⁶⁴ The study “results show that while a majority of survey respondents estimated a value impact of zero, some estimated a **negative impact associated with close distances between the home and the facility, and larger facility size.**”⁶⁵

Although the study was based on assessor opinions, rather than empirical data, the conclusions of the assessors that a negative impact is associated with close distance between

⁶² Leila Al-Hamoodah, et al, “An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations,” LBJ School of Public Affairs, The University of Texas at Austin, May 2018.

⁶³ Ibid.: 1.

⁶⁴ Ibid.: 15.

⁶⁵ Ibid.:1

the home and the facility, as well as larger facility size is a correct assumption. This trend is typical of most damage studies, including the environmental damage studies performed by this office that are included in the Addendum.

This study is not considered a reliable indication of potential diminution in value because it measures only the opinion of assessors, who generally are not licensed, certified or designated appraisers. Their charge is not the estimation of market value, but the equalization of property assessment. Though they are concerned with recent sales, the emphasis is on the relationship of assessments to sale ratios in the aggregate.

UNIVERSITY OF RHODE ISLAND STUDY

A study documenting the effect of solar development in Rhode Island and Massachusetts was published in September 2020.⁶⁶ “The purpose of this paper is to quantify the externalities associated with proximity to utility-scale solar installations using hedonic valuation.”⁶⁷ This study used “a difference-in-difference (DID) identification strategy, which compares changes in housing prices after construction for nearby properties with those further away.”⁶⁸ The study included 208 solar installations, 71,337 housing transactions occurring within one mile (treated group), and 347,921 transactions between one to three miles (control group).

The study’s “results suggest that solar installations negatively affect nearby property values...Property values in the treatment group decline on average 1.7% (or \$5,671) relative to the control group.”⁶⁹ The study also found, with respect to proximity, substantially larger negative impacts on homes located within 0.1 mile of solar installations (-7.0%, or \$23,682).

⁶⁶ Vasundhara Gaur and Corey Long, “Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island,” Department of Environmental and National Resource Economics, University of Rhode Island, September 29, 2020.

⁶⁷ Ibid.: 3.

⁶⁸ Ibid.: 4.

⁶⁹ Ibid.: 4.

This confirms the hypothesis that nearby solar installations are a **disamenity**.⁷⁰ Also, “these results suggest extremely large disamenities for properties in very close proximity.”⁷¹

This study, which is based on hundreds of thousands of transactions, **unequivocally has determined that SEGPSs negatively affect nearby property values**, contrary to the claims of solar developers’ appraisers that they have no negative impact.

It is notable, that the conclusions represent an average of all the 208 sites, with both large and small installations, of which some may or may not have a negative effect upon the utility of the nearby property. **If the utility of the property is not diminished, or if the expectations of the market are not impacted by the solar facility, then no diminution should be expected.** This average includes such properties. For example, this would include modestly priced houses with small lots in large subdivisions opposite a relatively small scaled industrial solar facility where the owner would not have expectations of a view nor would the utility of their homes be impacted by the solar installation. This is evident in the following discussion of the AM Best solar farm.

NINO ABASHIDZE DISERTATION

A PhD dissertation entitled, “Essays on Economic and Health Effects of Land Use Externalities” was written in 2019 at North Carolina State University. The treatise included two essays devoted to the effect of solar farms on property values.⁷²

The first essay, “Solar Farms and Agricultural Analysis,” concludes:

Results suggest that the construction of the solar farm does not create a positive or negative spillover effect on nearby agricultural land values. However, results suggest that construction of a solar farm nearby creates a signal effect of suitability of the land for solar development. Thus, after construction of a solar farm, landowners value being in close

⁷⁰ Ibid.: 15.

⁷¹ Ibid.: 17

⁷² Nino Abashidze, “Essays on Economic and Health Effects of Land Use Externalities,” North Carolina State Univeristy Doctoral Disertation, 2019.

<https://repository.lib.ncsu.edu/bitstream/handle/1840.20/38420/etd.pdf?sequence=1>

proximity to transmission lines given the importance of this feature in a solar developer's siting decision.⁷³

Abashidze's acknowledges that her study is not definitive by recommending the following for future research:

Although the current research examines the average impact of solar farms on nearby agricultural land values, future research would explore solar farm intensity/size and examine any differential effect of solar farms on nearby property values by their size. To accomplish this more sales post-construction of farms is needed, and would be available over time as more transactions occur.⁷⁴

In addition to analyzing the effect of solar farms on agricultural values, Dr. Abashidze analyzed residential property values in Chapter 3 of her dissertation, entitled, "Solar Farms and Residential Values in North Carolina."

The primary analysis indicates that the construction of a solar farm **decreases property values** of houses located within **one mile** of the solar farm by **8.7 percent** when the street network measure of distance to a solar farm is employed. This effect is larger in magnitude (**12.5 percent**) when only houses within a **half mile** of the solar farm are analyzed. Interestingly, these effects are primarily attributed to solar farms with less than 5 MW capacity because there are not sufficient home sales around larger solar farms. (Thus, further exploration is necessary to evaluate the effect of solar farms with larger capacity on nearby house values).

Back-of-the-envelope calculations show that a solar farm construction leads to about a \$11,900 reduction in average house value for houses located within one mile of the solar farm. Applying this estimate to the number of sales in the sample within one mile of the solar farm results in a **\$3.1 million loss in house value capitalization**. In addition, results also suggest that the solar farm construction reduces the frequency of home sales (by about 6 percent) within one mile of the solar farm. I am unable to determine if these effects are primarily supply side driven (e.g., houses are not put on the market as frequently), or demand-side (i.e. homes are put up for sale, not purchased, and subsequently removed from active listing).⁷⁵

It is significant that the data analyzed by Abashidze was **limited to solar farms with less than 5 MW capacity**.

⁷³ Ibid.: 27

⁷⁴ Ibid.: 27.

⁷⁵ Ibid.:

PROFESSIONAL APPRAISER REPORTS

FRED H. BECK & ASSOCIATES, LLC

The first widely available report documenting property value diminution as a result of proximity to SEGPSs was prepared in 2013 by Fred H. Beck, Jr., MAI, CCIM, MRICS of Denver, North Carolina. The report was prepared for the proposed Webbs Road Solar Farm adjacent to the Sailview Subdivision on Webbs Road and Burton Lane in Denver, Lincoln County, North Carolina. This report summarized the available relevant data from North Carolina at the time it was prepared.

Strata Solar Case Study

The first case study involves a sale contract that was canceled upon knowledge of the proposed Strata solar farm on Webbs Road. Mr. and Mrs. Daniel McLean owned a 0.60 acre tract with a 2,000 square foot residence at 4301 Burton Lane opposite Sailview Subdivision. The owners listed the property for sale in July 2013 for \$225,000. In mid-August 2013, they received an offer to purchase contract for \$200,000 with settlement to occur on October 30th. During this period, the public became aware of Strata Solar's proposal. With this knowledge, **the potential purchasers canceled the contract.**

According to the Beck report, the potential purchaser stated:

The public announcement of the solar farm was the impetus to cancel the contract. Mr. Hibben is in the construction business. He commented the solar farm would be unattractive, and the view would not be complimentary to single family dwellings. He mentioned he could not justify putting money in a dwelling that would be negatively affected by the solar farm for many years. We asked Mr. Hibben if he would reconsider if the purchase price was reduced by \$50,000. He said that he would not even consider a more substantial reduction in the purchase price.

**Table 1. Impact of Solar Farms on Property Value – Denver, Lincoln County, NC
By Fred H. Beck & Associates**

Location	Denver, NC
Property Owner	Mr. & Mrs. Daniel McLean
Property Description	2,000 Ft ² House on 0.6 acres
Advertised Price & Date Listed	\$225,000 in July 2013
Event causing potential Buyer to reduce offer	Impaired view caused by Solar Farm
Offer Amount & Date Made	\$200,000/August 2013
Potential Settlement Date	October 30, 2013
Event causing Potential Buyer to cancel purchase	Impaired view of Solar Farm caused by potential Buyer to cancel purchase

Clay County Solar Farm Case Studies

Tusquitte Trace Subdivision is a 15 lot, primarily second home development in Hayesville, Clay County, NC. The subdivision was developed in 2006 prior to the 2007 to 2009 recession with houses in the \$325,000 range. No lots were sold during the recession. However, from 2009 through 2010, three lots were sold with prices increasing from \$73,000 to \$75,000. In 2011 an adjacent farmer leased his farm for a small solar facility which was opposite the entrance to the subdivision. As of the date of the report, October 2013, **no additional lots sold**. Real Estate brokers have reported, the “buyers are turned off by the solar array on the adjacent farm, and they chose other lots without impaired views.”

In June 2011, Clay County residents successfully petitioned the Board of Equalization to **reduce their assessments an average of -30.0 percent** as a result of the solar farms in the county “hampering their views.”

**Table 2. Impact of Solar Farms on Property Values – Hayesville, Clay County, NC
By Fred H. Beck & Associates**

Location	Hayesville, NC
Type of Development	Subdivision
Date of Development	2006
Price Range of homes	In \$325,000 range
Economic Climate	Recession, 2007 - 2009
Activity in 2009 - 2010	Three lots sold in \$73,000 - \$75,000 range
In 2011, Solar Developer Leases Land across from Subdivision Entrance	Potential purchasers of land adjacent to Subdivision entrance are turned off by impaired view and lose interest.
Subsequent Activity in 2011 - 2013	Potential Buyers were turned off by the solar array to be erected opposite the Entrance
Subsequent Action by land purchasers	Purchasers changed their minds and chose other lots in Subdivision without impaired views.
Community Response	County residents petitioned Clay County Administration to reduce their assessment by an average of 30% as a result of "impaired views."

Non-residential Use View Impairment Case Study

This case study examines the effect of an incompatible commercial use on a higher priced residential subdivision in Elgin, Richland County, South Carolina. Southridge is a gated community of houses ranging from \$400,000 to \$800,000 that were constructed in the mid-2000s. In the fall of 2010, Verizon Wireless completed a 146,000 square foot call center on 29.00 acres adjacent to Southridge. The appraiser analyzed sales within the subdivision both before and after construction of the call center. Prior to construction, the sales appreciated in value, while after construction, **they declined from -10.70 percent to -23.10 percent, or an average of -15.2 percent.**

AM Best Solar Farm Study

This study examines the effect of smaller scaled solar farms on moderately price houses. As of the date of the report, AM Best was one of the few solar facilities adjacent to a

developing subdivision. This 6.65MW Strata Solar plant is in Goldsboro, Wayne County, North Carolina and adjoins Spring Garden Subdivision to the east. Construction, which began in March 2013 was completed in June 2013 on land zoned I-2 (General Industrial). This zoning classification “is established to accommodate the widest range of manufacturing, wholesale and distribution uses, provided the use does not create smoke, dust, noise, vibration or fumes beyond the property line.”

The appraiser included a graph indicating the average median housing prices within a 1.00 mile radius of the 42 completed major NC solar farms. The majority of solar farms adjoin houses ranging from \$90,000 to \$140,000 compared to the \$153,000 median price of Spring Garden. Also, a chart is included that represents the average household income within 1.00 mile of the NC solar farms indicating \$50,000 to be predominant, which compares to the average Spring Garden household income of \$51,543.

This subdivision began development in the late 1990s and at the time of the report had 60 home sites. Most of the lots have dense trees separating them from the solar farm, however, it is visible during the winter months to potential lots not yet developed. With no indication of diminution in value, the appraiser concluded that due to the industrial zoning of the solar farm, this market would be aware of the potentially incompatible use to residences and at this price level, the expectations of this market would not discount for proximity to such a use.

In reviewing reports prepared for various solar developers, this office examined recent sales from this subdivision. Based on their indication of no diminution in value when compared to earlier sales from the same subdivision with more protection from the solar plant, this office concurs with the Beck conclusion. This is **an example of a market’s perception and expectation of property utility**. Because of the **pre-existing industrial zoning of the solar plant**, the market does **not perceive there to be loss of utility** and therefore, **no damage to their property value**.

MARK W. HECKMAN REAL ESTATE APPRAISERS

Mark W. Heckman, a Pennsylvania certified general real estate appraiser testified in September 2020 at a Mount Joy Township, Gettysburg, Adams County, PA Board of Supervisors meeting concerning the application of Brookview Solar I, proposed a 75 MW SEGPS on 1,500 acres. Based on the following case study, the appraiser concluded that the property values of the 114 residences within 1,000 linear feet of the SEGPSs would decline up to 20.00 percent.

Adams County View Case Study

This appraiser compared sales of properties with a Multiple Listing Service (MLS) reported “view” with those without such a designation. “View” was defined as: City, Creek/Stream, Golf Course, Lake, Mountain, Panoramic, Pasture, Pond, River, Scenic Vista, Trees/Woods, Valley and Water.

The MLS search was based on a 3-4 bedroom ranch style single family dwelling on a lot of less than 5.00 acres with and without a “view.” The result of the search included a data set of 85 properties with a “view” which indicated an average sale price of \$251,274 and median sale price of \$235,000. The data set without a “view” included 410 properties with an average sale price of \$227,808 and a median sale price of \$215,000. **The difference between the average sale prices was -9.34 percent and the difference between the median sale prices was -8.51%.** (However, the appraiser concluded in the affirmative that the view added 10.31 percent to the average sale price and 9.30 percent to the median sale price).

**Table 3. Impact of View on Property Value – Adams County, PA
By Mark W. Heckman Real Estate Appraisers**

	With a “View”	Without a “View”
Number of Properties included in study	85	410
Average Sale Price	\$251,274	\$228,808
Median Sale Price	\$235,000	\$215,000

- The Impact of View on Property Value is summarized in the Table below:

	Dollar Increase in Price based on “View”	Percent Increase in Price based on “View”
Based on Average Sale Price	\$22,466	9.34%
Based on Median Sale Price	\$20,000	8.87%

The appraiser concluded that, “In Adams County a Good View adds approximately 10% to the value of residential property. So, it is **reasonable to conclude that a loss of 15-20% for degradation of view** is reasonable and credible since many properties would go from Good View to Objectionable View if they now had to see thousands of solar panels.”

MADISON COUNTY INDIANA CASE STUDY

On August 29, 2019 Bethany Keller appeared before the Madison County, Indiana Board of Zoning Appeals to testify regarding her purchase of an 18.42 acre tract improved with a 2,000 square foot single family residence at 3764 W State Road 28 in Alexandria, Indiana. The property would be surrounded by the proposed Lone Oak Solar Plant. Aware of the proposed 120 MW solar power plant on 1,890.00 acres, the potential purchasers made an offer of \$117,000 on July 31, 2019. The property was appraised on August 14, 2019 for the loan. The appraiser did not know about the proposed solar plant when he appraised the property. The appraised value was \$140,000, or a **difference of -16.43 percent**.

According to Mrs. Keller’s testimony, “We wanted this property. Then after we found out about the solar farm, we were very hesitate. We are moving forward with it, because this

is our dream... We are getting this 16.5% less than appraisal value, and we are still gambling our financial future, our son's financial future, and our future health on this. So if you think this isn't going to affect property values, we are not willing to pay more than this, because we are scared."

GREENFIELD ADVISORS

This conclusion of no impact is contradicted by **Greenfield Advisors** of Seattle, Washington. This firm is one of the most published in the field of environmental damage studies in the United States. An April 5, 2019 blog addressed the impact of wind turbines on property value.⁷⁶

According to the blog, "wind turbines interferes with the use and enjoyment of residences. Noise pollution is created by wind turbines, more particularly, groups of turbines at wind farms. Shadows and flicker may impact nearby homes, depending on their proximity to the wind farm. Health impacts may arise for nearby residents whose sleep is interrupted by the noise and light issues noted above. **Impacts to view** may be considered a **disamenity** to residents who experience limited overall visibility and/or a change from **natural vistas to a more industrial view.**"

With respect to stigma and decreased demand, "the anticipation of adverse effects from wind farms has been noted in some studies to have more impact on value, than the effects of the wind farms themselves. While all the above may not deter every buyer or homeowner, the stigma of such issues alone can diminish the pool of potential buyer, thus causing some negative impact on the price of the property."

"Among the studies we reviewed, the **highest diminution** we saw was **-40%**, and that was in circumstances where the wind turbine was located directly on the property. While that loss percentage was on the high end, **most studies** show that the losses in property value from wind farms in the United States is somewhere between **0% and -35%**."

⁷⁶ Abigail Mooney, "Do 'Windmills' Affect Property Value?," Greenfield Advisors, April 5, 2019.

GOOD NEIGHBOR AGREEMENTS

WESTERN MUSTANG SOLAR, LLC'S NEIGHBOR AGREEMENT

In reviewing numerous reports, prepared by MAI designated appraisers for various solar developers, without exception, the appraisers have concluded that, "no consistent negative impact has occurred to adjacent property that could be attributed to proximity to the adjacent solar farm."⁷⁷

Furthermore, the Solar Energy Industries Association (SEIA) published the following claim that "large-scale solar arrays often have no measurable impact on the value of adjacent properties, and in some cases many even have positive effects."⁷⁸ This publication also included the following quotes from appraisers used by the solar developers.

- A study conducted across Illinois determined that the value of properties within one mile increased by an average of 2 percent.⁷⁹
- An examination of 5 counties in Indiana indicated that upon completion of a solar farm, properties within 2 miles were an average of 2 percent more valuable compared to their value prior to installation.⁸⁰
- An appraisal study spanning from North Carolina to Tennessee shows that properties adjoining solar farms match the value of similar properties that do not adjoin solar farms within 1 percent.⁸¹

These conclusions, however, are belied by the actions of their solar developer clients who have not only **acquired, in fee, adjoining residential properties** to their solar farms and resold them (North Star Solar Farm, North Branch, MN), but have **paid nearby adjoining property owners** a "good neighbor" fee to **refrain from objecting** to their

⁷⁷CohnReznick, "Adjacent Property Values Solar Impact Study: A Study of 8 Existing Solar Facilities – Lapeer County, MI; Chisago County, MN; Marion County, IN; LaSalle County, IL, Cumberland, Rutherford and Wilson Counties, NC; Isle of Wright County, VA;" June 10, 2020.

⁷⁸ SEIA, "Solar and Property Values, Correcting the Myth that Solar Harms Property Value," July 2019, www.seia.org.

⁷⁹ Richard C. Kirkland, "Grandy Solar Impact Study," Kirkland Appraisals, February 25, 2016.

⁸⁰ Andrew Lines, "Property Impact Study: Solar Farms in Illinois," *McLeancounty.gov*, Nexia International, August 8, 2018.

⁸¹ Patricia McGarr, Property Value Impact Study, Cohn Reznick, LLP Valuation Advisory Services, May 2, 2018.

proposals. The question is: if industrial-scale solar farms are benign and could possibly even enhance adjacent property values, then why is it necessary for solar developers to not only pay adjoining owners, but purchase their properties?

The first “Neighbor Agreement” from Wisconsin, offering \$17,000, is such an offer. This agreement applies to adjacent owners whose property abuts the proposed solar project on two or more sides. The agreement **binds the adjacent property owners “to cooperate with Western Mustang’s development, construction and operation of the project.”**

By cooperation, the solar developer expects the property owner to **“fully support”** the developer’s efforts to obtain any permits and approvals and to agree **“not to oppose, in any way, whether directly or indirectly, any such application or approval at any administrative, judicial or legislative level.”**

In return for this **“cooperation,”** the developer will pay the property owner a “signing payment” of **\$2,000.00** within 45 days after the effective date. In addition, within 45 days of vertical construction of the project, the developer will pay a one-time **additional payment of \$15,000.** The agreement is to remain **confidential.**

The Western Mustang Solar, LLC agreement is included in the Addendum.

LIGHTHOUSE BP’S NEIGHBOR AGREEMENT

A second “Neighbor Agreement,” was discussed in a November 23, 2020 article in *The Lima News* of Lima, Ohio. This article described the second public forum which was required by the Ohio Power Siting Board (OPSB) that approves or rejects the proposed 2,600.00 acre 300 MW Birch Solar Project. Lighthouse BP, the developer, stated that: “Landowners who are adjacent to the project will be offered anywhere from **\$5,000 to \$50,000,** depending on their closeness to the solar farm.”

POSEY SOLAR NEIGHBOR AGREEMENT

A third “Neighbor Agreement” was recently issued by Posey Solar to the community of Posey County, Indiana. This agreement offered **“an upfront payment equal to 10% of**

appraised home value for neighbors within 300 feet of the solar field. This is in addition to the **annual \$1,000 payment (\$35,000 for project life)** during operations for those who would like to sign a “Good Neighbor Agreement.”

VESPER ENERGY NEIGHBOR AGREEMENT

A fourth agreement was issued by Vesper Energy described as the “Kingwood Solar Neighboring Landowner Compensation Agreement.” The letter sent to the Greene County, Ohio residents, “invites you to receive revenue as a participant of the Kingwood Solar Project through a Good Neighbor Agreement.” Although the stipulations regarding receiving the revenue are not stated within the offer to sign letter, the “payment amounts subject to terms of Good Neighbor Agreement” are delineated.

Agreement Signing: \$1,000.00

Payment Schedule: Lump-sum payment issued at Notice to Proceed with Project Construction

Tiered Payment Structure:
Tier 1 = \$25,000
Tier 2 = \$15,000
Tier 3 = \$10,000
Tier 4 = \$ 7,500

NORTH STAR SOLAR BUYOUT

The North Star solar facility is the example of a solar farm that resulted in the purchase and subsequent resale of adjoining properties. Although solar developers’ appraisers maintain that these purchases were made for “interim employee housing,” documents filed with the Minnesota Public Utilities Commission (MPUC) belie this claim. A letter dated March 15, 2016 from Community Energy Solar to the Executive Secretary of MPUC states:

North Star Solar PV LLC (“North Star”) respectfully submits this filing in accordance with the February 16, 2016 Order Granting Site and Route Permits with Conditions, requiring that: ‘North Star shall notify the Commission of the resolution of the negotiations with the seven remaining landowners

surrounded by the solar panels by providing a copy of any signed agreements or **agreed-upon mitigation** by March 15, 2016.

While the precise **terms of the resolutions** reached with these landowners are **confidential**, North Star attached a recorded Memorandum of Purchase Option Agreement. The letter is included in the Addendum.

According to the Minnesota Public Utilities Commission in a February 4, 2021 email to this office:

At no time did the Minnesota Public Utilities Commission require the developer, North Star Solar LLC, to purchase any properties as part of the site permit application review process or as part of granting a site permit. A condition or requirement to purchase property is not something the Public Utilities Commission can require of an applicant/permittee. North Star Solar LLC, on its own accord, offered purchase options to landowners within or near their proposed project boundary.

At the time of its completion, in December 2016, North Star Solar PV was the largest industrial scale plant in the Midwest. This 1,000.00 acre, 138 MW solar farm is in North Branch, Minnesota. It is notable that it cost the North Star developer \$627,000 more to acquire these properties than the price for which they were sold.

These five examples of voluntary payments to the surrounding property owners by the solar developer are significant because their own appraisers have determined that their proposed solar farms will have no adverse impact on adjacent property values. However, these offers, and purchases can only reasonably be interpreted as a **tacit admission of potential value impairment**.

MARY MCCLINTON CLAY, MAI

This office has recently reviewed two reports prepared by Cohn Reznick and Marous & Company for proposed solar farms in Michigan and Indiana, respectively. Included within both reports was an analysis of a case study of the North Star Solar Farm in North Branch, Minnesota. As a result of the errors found within these reports, this office has analyzed the

same data that both reports used and refutes their conclusion that there is no negative impact upon adjacent property values.

NORTH STAR SOLAR PV CASE STUDY – SALE-RESALES ANALYSIS

As indicated in the previous Neighborhood Agreement discussion, the North Star SPGPS is the example of such a facility that required the purchase and subsequent resale of adjoining properties.

At the time of its completion, in December 2016, North Star Solar PV was the largest SEGPS in the Midwest. This 1,000.00 acre, 138 MW facility is in North Branch, Minnesota. As a result of pressure from property owners who abutted at least three sides of the SEGPS, the developer purchased their seven properties and subsequently resold them. The following charts summarize the sale-resale data of these seven properties.⁸² A map depicting these properties follow and are followed by a map depicting the solar farm.

The chart depicting the seven sales purchased and resold by the developer, CER Land, LLC, for deed transfer purposes, includes three transfers for each property. The first deed represents the sale to the original property owner, which is an arms-length or market sale because it meets the definition of market value.⁸³ The second sale is from the original owner to CER Land, LLC. This is not considered a market value sale because it does not meet the definition of market value, primarily because it was negotiated under duress. The third sale is from the developer to a new owner (except for Sale-resale No. 1 which was sold back to the original owner). The third sale is a market value sale because, except for No. 1,

⁸² The sales data was obtained from county records, MLS data, and information present to the Minnesota Public Utilities Commission on March 15, 2016 regarding the resolution of the negotiations with landowners.

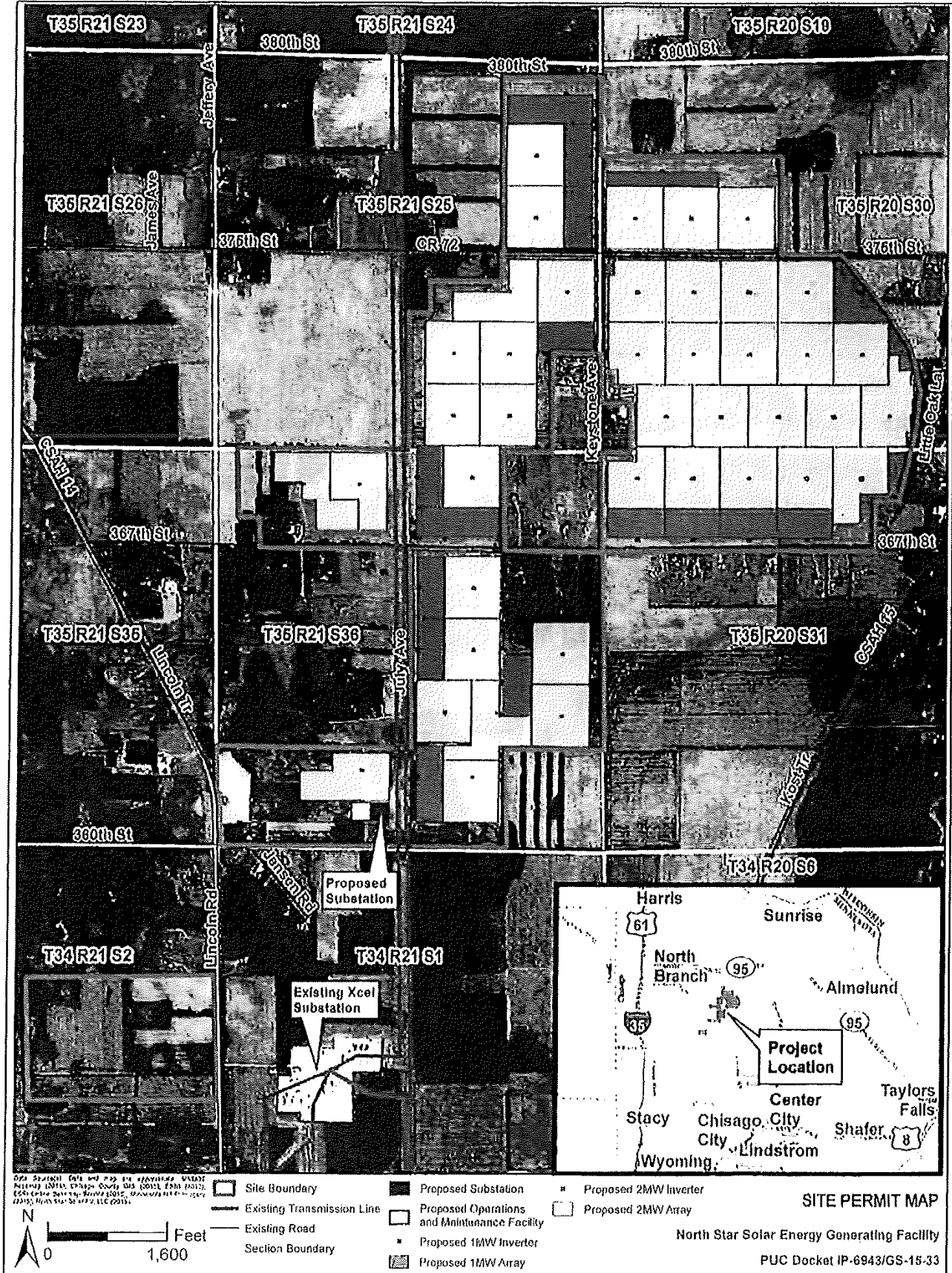
⁸³ Definition of Market or Arms-length Sale: A transaction between unrelated parties who are each acting in his or her own best interest. *The Dictionary of Real Estate Appraisal*, 5th ed., s.v. "arms-length transaction." Definition of Market Value: The most probable price that the specified property interest should sell for in a competitive market after a reasonable exposure time, as of a specified date, in cash, or in terms equivalent to cash, under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, for self-interest and assuming that neither is under duress. *The Dictionary of Real Estate Appraisal*, 5th ed., s.v. "market value."

NORTH STAR SOLAR PV SALE/RESALE COMPARISON

SALE/ RESALE	PARCEL NO.	ADDRESS	SALE DATE	GRANTOR	GRANTEE	NET SALE PRICE	\$ CHANGE	% CHANGE	ANNUAL % CHNG	SALE TAX ASSESSM'T	ACRES	COMMENTS
1	110072810	10090 367th Street	05/07/10	Corey Holcomb	Scott Dornbusch	\$216,600	NA	NA	NA	NA	10.090	2001 1,990 SF 4LS, 800 SF Fin.
1	110072810	10090 367th Street	08/03/16	Scott Dornbusch	CER Land, LLC	\$360,800	\$144,200	66.57	8.50	\$250,600	10.090	48R-3B; Adj. SF at W & Rear
1	110072810	10090 367th Street	03/21/18	CER Land, LLC	Scott Dornbusch	\$302,500	(\$58,300)	-16.16	NA	\$269,500	10.090	Time Adjustment from 5/7/10 Sale to 3/21/18, or 7.9 yrs. \$216,600/7.9 Yr/6.8% = \$364,296 \$364,296 v. \$302,500 = -17.0%
5/7/10 Sale Price was \$219,900 with seller paid amount of \$3,300, or \$216,600.												
2	110073210	10095 367th Street	07/09/10	Rense Dresel	Shawn Yerges	\$299,000	NA	NA	NA	NA	9.900	2002 1,677 SF 3LS, 1000 SF Fin Bsm
2	110073210	10095 367th Street	05/18/16	Glenn J. Yerges	CER Land, LLC	\$365,000	\$66,000	22.07	3.46	\$277,900	9.900	48R, 2.5B; Adj. SF 2 Sides, Rear
2	110073210	10095 367th Street	06/15/17	CER Land, LLC	Shawn Campbell	\$328,004	(\$36,996)	-10.14	NA	\$301,500	9.900	Dense Mature Trees Adj. SF Time Adjustment from 7/9/10 Sale to 6/15/17, or 6.9 yrs. \$299,000/6.9 Yr/6.3% = \$455,851 \$455,851 v. \$328,004 = -28.0%
6/15/17 Sale Price was \$336,900 with seller paid amount of \$8,896, or \$328,004. The 2017 sale was encumbered with a 30 year lease on the rear 6.24 acres to North Star Solar PV at a rate of \$1,000 per acre, or \$6,240 annually with an annual increase of 1.0 percent.												
3	90035100	37083 Keystone Ave	08/08/00	P.W. Lee	Douglas Melby	\$100,000	NA	NA	NA	NA	6.000	1964 1,442 SF 1 Sty, 228 SF Fin Bsmi
3	90035100	37083 Keystone Ave	10/11/16	Douglas Melby	CER Land, LLC	\$302,500	\$202,500	202.50	7.08	\$179,300	6.000	38R-2B; Adj. SF 2 Sides & Rear
3	90035100	37083 Keystone Ave	08/28/17	CER Land, LLC	Richard Brandt	\$252,290	(\$50,210)	-16.60	NA	\$199,140	6.000	Time Adjustment from 8/8/00 Sale to 8/28/17, or 17.1 yrs. \$200,000/17.1 Yr/2.4% = \$300,034 \$300,034 v. \$252,290 = -15.9%
8/28/17 Sale Price was \$257,000 with seller paid amount of \$4,710, or \$252,290. Mr. Mebly stated that subsequent to his sale, he completely renovated his house and constructed a pole barn at a cost of \$100,000.												
4	110072840	10254 367th Street	11/29/05	Nielson Const.	Kory Abell	\$360,000	NA	NA	NA	NA	9.280	2005 2,326 SF 4LS, Unfin. Bsm't,
4	110072840	10254 367th Street	07/27/16	Kory B. Abell	CER Land, LLC	\$535,000	\$175,000	48.81	3.78	\$285,000	9.280	38R-2.5B; Corner Lot, Opposite SF at W and Front
4	110072840	10254 367th Street	10/27/17	CER Land, LLC	Todd J. Huebl	\$324,950	(\$210,050)	-39.26	NA	\$304,600	9.280	Time Adjustment from 12/16/05 Sale to 10/17/17, or 11.8 yrs. \$390,000/11.8 Yr/0.0% = \$390,000 \$390,000 v. \$324,950 = -16.7%
11/29/07 Sale Price was \$373,000 with seller paid amount of \$13,050, or \$360,000. \$30,000 Pole Barn was constructed in 2006. \$390,000 is the adjusted SP for the 11/29/05 sale. 10/27/17 Sale Price was \$335,000 with seller paid amount of \$10,050, or \$324,950.												

NORTH STAR SOLAR PV SALE/RESALE COMPARISON

SALE/ RESALE	PARCEL NO.	ADDRESS	SALE DATE	GRANTOR	GRANTEE	SALE PRICE	\$ CHANGE	% CHANGE	ANNUAL % CHNG	SALE TAX ASSESSM'T	ACRES	COMMENTS
5	110072820	10132 367th Street	07/02/01	Corey Holcomb	Richard Daniels	\$226,800	NA	NA	NA	NA	9.308	2001 1,446 SF 3LS, 700 SF Fin Bsmt
5	110072820	10132 367th Street	09/23/16	Richard Daniels	CER Land, LLC	\$371,800	\$145,800	63.58	3.30	\$239,900	9.308	4BR-2.5B: SF at Rear & Front
5	110072820	10132 367th Street	10/20/17	CER Land, LLC	Tyler Winczewski	\$333,000	(\$38,800)	-10.44	NA	\$256,600	9.308	Time Adjustment from 7/3/01 Sale to 10/20/17 , or 16.3 yrs. \$226,800/16.3 Yr/1.8% = \$303,352 28' x 50' Pole Barn Not Included. Constructed after 2001 Sale. 0%
6	110072830	10200 367th Street	10/27/04	Corey Holcomb	Thomas B. Hoch	\$309,000	NA	NA	NA	NA	9.300	2003 1,472 SF TL, 4BR-3.5B, Barn
6	110072830	10200 367th Street	07/27/16	Thomas B. Hoch	CER Land, LLC	\$387,900	\$78,900	25.53	4.71	\$262,800	9.300	Renov. 2009, SF at Front
6	110072830	10200 367th Street	11/28/17	CER Land, LLC	Mikael Koldste	\$320,100	(\$67,800)	-16.77	NA	\$281,200	9.300	Time Adjustment from 11/8/04 Sale to 11/18/17, or 13.0 Yrs. \$324,500/13.0 Yr/0.4% = \$341,785 \$341,560 v. \$320,100 = -6.3%
Pole Barn was constructed in 2006 for \$15,500. 10/27/04 Sale Price is adjusted to \$324,500. 10/28/17 Sale Price was \$330,000 with seller paid amount of \$9,900 , or \$320,100.												
7	110052600	37206 Keystone	07/31/12	John M. Mosley	Kristine Anderson	\$212,000	NA	NA	NA	NA	20.110	1996 1,092 SF SE, 900 SF Fin. Bsmt
7	110052600	37206 Keystone	07/20/16	Kristine Jacobsen	CER Land, LLC	\$450,000	\$238,000	112.30		\$258,000	20.110	4BR-2B, Det. Gar. w/Apt
7	110052600	37206 Keystone	06/15/17	CER Land, LLC	Todd R. Iverson	\$282,200	(\$167,800)	-37.3	NA	\$273,700	20.110	Time Adjustment from 6-4-13 Sale to 5-15-17, or 3.9 Yrs. \$212,000/3.9 Yr/8.6% = \$292,552 \$292,552 v. \$282,200 = -3.5%
Contract for Deed on 7/31/12 with Deed transfer on 6/4/13. 6/15/17 Sale Price was \$290,000 with seller paid amount of \$7,800, or \$282,200.												
Total Purchase Price to CRE Land, LLC				\$2,773,000								
Total Sales Price from CRE Land, LLC				\$2,143,044								
Total Loss				\$629,956								
				-22.72%								



the sales were adequately exposed to the market having been placed on the local Multiple Listing Service prior to the last sale.

Because the first and third sales for each property are market value sales, it is possible to apply the sale-resale methodology to these sales to determine if they indicate a “before and after” change in value. The first sale represents a sale that occurred before any knowledge of the solar development existed, while the third sale occurred after construction of the facility. Generally, the only difference between the two sales is time, also referred to as market condition.

In order to compare the two sales, an adjustment must be made to the older sale to bring it up to the value level of the second sale. This is done by making a time adjustment based on supporting data from the market. The following chart represents the annual median and average sale price for houses in North Branch and Chisago County.⁸⁴ The median sale price for North Branch, specifically, was judged to be the most relevant of the two sources since it does not include the extreme values.

This data was used to calculate the compound rate of increase from the date of the first sale to the second sale and then increase the first sale by the indicated rate. After this adjustment is made, then the adjusted sale price of the first sale can be compared to the sale price of the third sale. A difference in the two sale prices will indicate if there is a diminution in value as a result of the construction of the SEGPS.

Description of the Sales Chart

For ease of comparing the sales data at once, the North Star sales are depicted on the North Star Solar Farm Sale-resale Comparison Chart. The following describes each column of the chart.

⁸⁴ The time adjustment chart was prepared by David Abbot, a statistician with the Minneapolis Area Board of Realtors.

North Branch

	Median	% YoY Chg	Average	% YoY Chg
2000	\$ 139,000		\$ 147,552	
2001	\$ 155,389	11.8%	\$ 174,121	18.0%
2002	\$ 171,900	10.6%	\$ 188,163	8.1%
2003	\$ 182,000	5.9%	\$ 207,129	10.1%
2004	\$ 197,000	8.2%	\$ 212,733	2.7%
2005	\$ 208,900	6.0%	\$ 230,131	8.2%
2006	\$ 201,950	-3.3%	\$ 214,891	-6.6%
2007	\$ 202,150	0.1%	\$ 206,783	-3.8%
2008	\$ 159,382	-21.2%	\$ 166,781	-19.3%
2009	\$ 141,000	-11.5%	\$ 143,056	-14.2%
2010	\$ 136,000	-3.5%	\$ 147,947	3.4%
2011	\$ 115,544	-15.0%	\$ 121,466	-17.9%
2012	\$ 123,650	7.0%	\$ 129,505	6.6%
2013	\$ 149,900	21.2%	\$ 159,728	23.3%
2014	\$ 163,700	9.2%	\$ 168,857	5.7%
2015	\$ 175,000	6.9%	\$ 195,721	15.9%
2016	\$ 187,750	7.3%	\$ 198,888	1.6%
2017	\$ 208,195	10.9%	\$ 221,678	11.5%
2018	\$ 230,000	10.5%	\$ 251,715	13.5%
2019	\$ 231,800	0.8%	\$ 246,021	-1.5%
2020	\$ 262,500	13.2%	\$ 275,585	11.1%

2007 chg	45.4%	40.1%
2020 chg	29.9%	33.3%
2020 chg	88.8%	86.8%

Chisago County

	Median	% YoY Chg	Average	% YoY Chg
\$ 147,900			\$ 161,997	
\$ 164,900	11.5%		\$ 178,846	10.4%
\$ 181,900	10.3%		\$ 199,640	11.6%
\$ 200,000	10.0%		\$ 219,703	10.0%
\$ 210,000	5.0%		\$ 235,939	7.4%
\$ 229,000	9.0%		\$ 250,686	6.3%
\$ 224,325	-2.0%		\$ 248,741	-0.8%
\$ 215,000	-4.2%		\$ 231,397	-7.0%
\$ 176,000	-18.1%		\$ 192,913	-16.6%
\$ 155,000	-11.9%		\$ 164,975	-14.5%
\$ 148,875	-4.0%		\$ 157,998	-4.2%
\$ 140,000	-6.0%		\$ 146,672	-7.2%
\$ 139,900	-0.1%		\$ 153,268	4.5%
\$ 166,950	19.3%		\$ 182,321	19.0%
\$ 185,000	10.8%		\$ 199,015	9.2%
\$ 197,500	6.8%		\$ 215,329	8.2%
\$ 215,000	8.9%		\$ 230,247	6.9%
\$ 233,250	8.5%		\$ 249,491	8.4%
\$ 254,900	9.3%		\$ 268,737	7.7%
\$ 261,403	2.6%		\$ 282,035	4.9%
\$ 285,500	9.2%		\$ 304,938	8.1%

45.4%	42.8%
32.8%	31.8%
93.0%	88.2%

Sale-resale: This column identifies the 7 transactions that involved the developer of North Star.

Parcel No.: This is the Chisago County Tax Assessors identifying number of the property.

Address: This is the street address of the property being analyzed.

Sale Date: This is the date that the deed was transferred, i.e. the date on the deed. This date is not to be confused with the date that the deed was recorded, which is sometimes a few days later.

Grantor: This is the seller of the property.

Grantee: This is the buyer of the property.

Net Sale Price: The net sale price is the gross sale price less any money paid by the seller that was applied to reduce the sale price. If the sale price includes any seller paid amount, it will be described in the note after the property transactions.

\$ Change: This is the dollar amount difference between the first and second sale, as well as the dollar amount difference between the second and third sale.

% Change: This is the percentage difference between the first and second sale, as well as the percentage difference between the second and third sale.

Annual % Change: This is the annualized rate of change between the first and second sale.

Sale Tax Assessment: This is the property tax assessment of the property as of the date of sale.

Comments: The comments include a description of the property in the following order: date of construction; square footage above ground level; architectural design (3 or 4 level split, 1-story, tri-level, split entry); basement square footage of finish; number of bedrooms and baths; location of solar farm, i.e. rear and front.

Also, under comments, the time adjustment is made from the date of the first sale to the date of the third sale. This includes calculating the number of years between the two sales

and determining the rate or percentage change between these two years based on the North Branch median sale price chart. After the number of years is determined and the rate of increase between that time, these numbers are applied to the first sale price which adjusts it the level of the third sale price. In other words, this indicates, in the first example, that the value of the \$216,000 sale price in 7.9 years increased at 6.8 percent, is \$364,296.

Sale-Resale Analysis

The following is a discussion of the results of each of the seven properties with the first sale adjusted for time from its sale date to the date of the third sale and the resulting comparison of the two sales, adjusted for time, to determine if there is a change in value.

Regarding Sale-Resale No. 1, Scott Dornbusch not only sold his property to CER Land, LLC, for \$360,000, but he bought it back for \$302,500. However, with respect to the comparison between the first sale price, increased for time, to the date of the third sale, this example indicates a **diminution in value of -17.0 percent**. Although this sale-resale is not arms-length, it is nonetheless, consistent with the other 6 arms-length sales. Because this sale was repurchased by the same individual, it is reasonable that his prior invested interest in the property would indicate this to be a minimal indication of value loss.

Sale-resale No. 2 is the property on the south side of 367th surrounded on three sides by the solar plant. The rear 6.24 acres of this property were encumbered by a 30 year lease to North Star Solar PV, LLC at a rate of \$1,000 per year to be increased at 1.0 percent annually. This example represents a highest rate of **decline in value of -28.0 percent**. The most predominant rate of decrease is -17.00 percent (Sale/resales No. 1, No. 3, and No. 4), which suggests that this encumbrance would add an additional -11.00 percent, despite that it contributes an annual income stream of \$12,000.

Sale-resale No. 3 represents an original sale that occurred in 2000 that was extensively renovated, subsequent to that sale, with the additional construction of a pole barn. The seller indicated that the cost of such improvements was approximately \$100,000.

Adjusted for these improvements, this sale-resale **indicates -16.0 percent diminution in value.**

Sale-resale No. 4 is at the corner of Keystone Avenue and represents a **diminution in value of -12.9 percent.**

Sale-resale No. 5 **does not indicate a decrease in value** between the original sale and the second resale. However, the sale price does not reflect the addition of a pole barn in the estimates. According to reports from the Chisago County Assessor's office more than one purchaser indicated that they did not consider the solar plant to be detrimental—in fact, they preferred this industrial use to having neighbors.

Sale-resale No. 6 **indicates a -6.3 percent diminution in value.**

Sale-resale No. 7 is the largest property among this group on the west side of Keystone Avenue. This example indicates a **diminution in value of -3.5 percent.** The original purchaser reported that the last purchaser stated that, "he did not want neighbors."

The sale-resales indicate a range of diminution in value from 0 to -28.0 percent, or an average of -12.5 percent and a median of -15.9 percent. **The median of -15.9 percent of diminution in value is consistent with the indication from the Madison County Indiana case study with a -16.43 percent value decline.**

It is notable that CER Land, LLC purchased the seven properties for a total of \$2,773,000 and sold them for \$2,143,044. This represents a loss of -\$629,956, or -22.72 percent.

MCBRIDE PLACE SOLAR FARM CASE STUDY – SALE-RESALES ANALYSIS

McBride Place Solar Farm is on Mount Pleasant Road in Midland, North Carolina. The project consists of 627 acres of a total tract of 974.59 acres. The 74.9 MW project was approved in 2017.

An analysis of the sales of the single-family dwellings that surround the project indicate that three sale-resales have occurred spanning the time period before and after the project was approved.

A time adjustment derived from the Zillow Home Value Index for North Carolina Single Family Market from 2014 to 2021. The first sale was increased for time based on the indicated rate of appreciation of 5.35 percent, 5.08 percent and 5.00 percent respectively. This resulted in the anticipated value based on market appreciation, as if the solar farm had not been constructed. When comparing these values to the actual sale prices after construction, these **sales indicate diminution of -15.65 percent, -15.51 percent and -16.44 percent**, respectively. The analysis is depicted on the following chart and map.

It is notable that a fourth sale, though not a sale-resale, was **-16.81 percent** below its assessment at the time of sale.

It is significant that Sale-Resale No. 1's property line is **325.0 linear feet west of the closest solar panel and the dwelling is 550.0 linear feet west**. Sale-resale No. 2's rear property line is **200.0 linear feet north of the closest solar panel and the dwelling is 350.0** linear feet north. Sale-resale No. 3 is one lot removed from the solar panels on the west side of Haydens Way. Sale No. 4's east property line is within 150.0 linear feet of the closest solar panel while the dwelling is within 550.0 linear feet. Dense woodland is between the solar panels and all the examples of diminution.

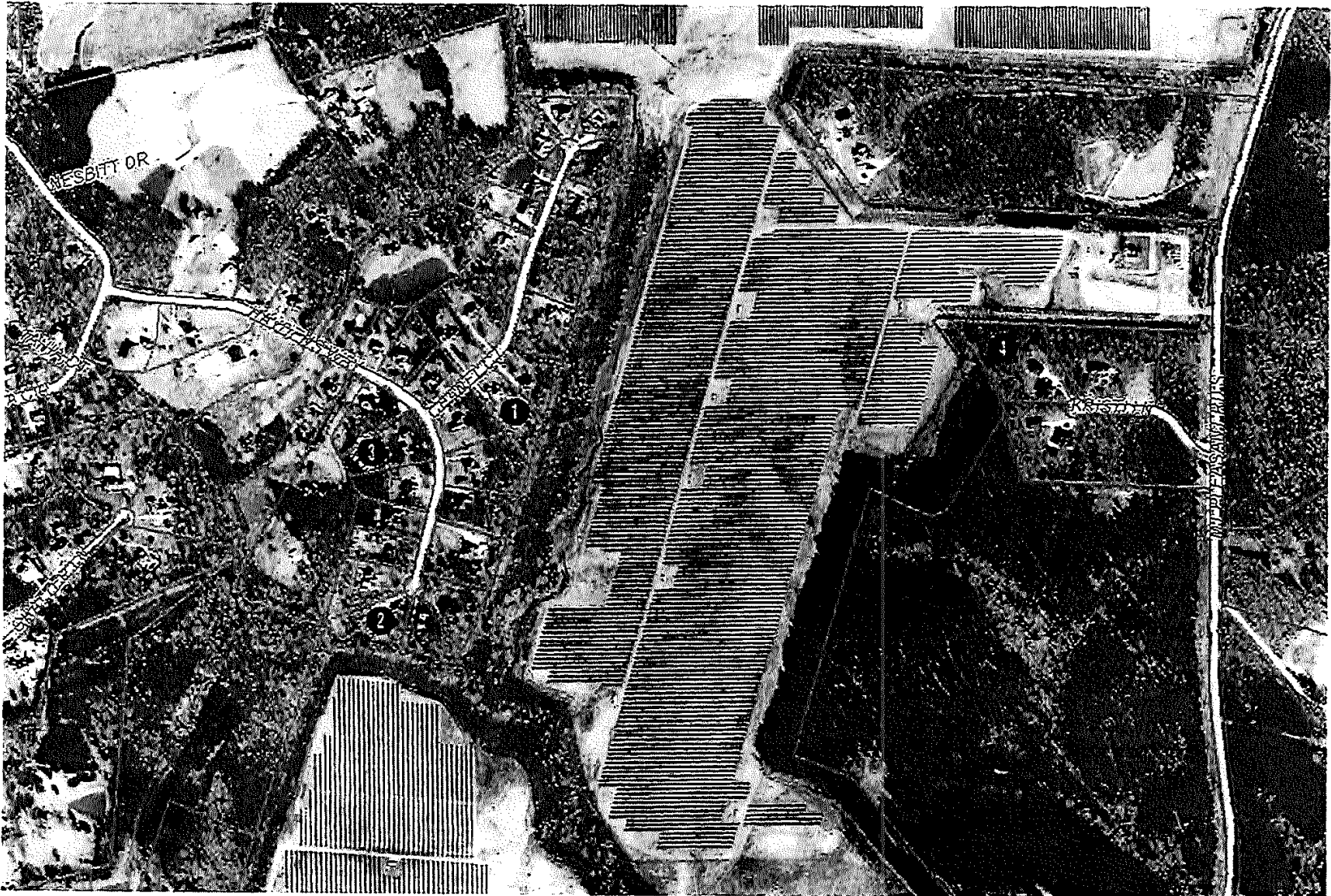
SALE/RESALES ADJOINING MCBRIDE PLACE SOLAR FARM - MIDLAND, NC

SALE/ RESALE	PARCEL NO.	ADDRESS	SALE DATE	DEED BOOK/PG	GRANTEE	SALE PRICE	SALE TAX ASSESSM'T	ACRES	COMMENTS
1	5556-26-2054	4504 Chanel Court	1/17 1/20	12328-116 13932-047	NA Phillip G. Pees	\$399,000 \$393,500	\$396,720 \$474,750	1.730	2005 2,558 SF 1 Sty BV, 4-3.5, Full Bsmt, 2-CAG, FAG, CA, FP Adjust 1/17 Sale to 1/20, or \$399,000/3.0 Yr/5.35%* = \$466,527, or -15.65%
2	5556-27-5419	4599 Chanel Court	9/15 8/20	11575-087 14404-283	NA Peter Weinziel	\$462,000 \$500,000	\$473,490 \$531,440	1.000	2007 2,411 SF 2 Sty BV, 5/4.5 Full Bsmt, 2-CAG, HP, CA, FP Adjust 9/15 Sale to 8/20, or \$462,000/5.0 Yr/5.08% = \$591,775, or -15.51%
3	5556-15-6844	8704 Haydens Way	7/12 4/19	10081/209 13463/180	NA Ben. Merriman	\$322,000 \$375,000	\$306,680 \$372,460	1.960	2001 1,353 SF 2 Sty BV, 4/3 Full Bsmt, 2-CAG, HP, CA, FP Adjust 7/12 Sale to 4/19, or \$322,000/6.8 Yr/5.0% = \$448,771, or -16.44%
4	5556-46-7264	5811 Kristi Lane	4/20	14095/125	Fred E. Trull, Jr.	\$530,000	\$637,100	3.740	2019 2,462 SF 2 Sty BV, 6/4 Part. Bsmt, 2-CAG, FAE, CA Sale Price compared to Assessment = -16.81%

*The time adjustment was based on the Zillow Home Value Index for the North Carolina Single Family Market from 2014 to 2021.

5/20/2021

Cabarrus County Property Report



SUNSHINE FARMS CASE STUDY – SALE-RESALE ANALYSIS

Ecoplexus, Inc., a San Francisco solar developer built a 20 MW project on the former 121.4 acre Goose Creek Golf and Country Club at 6562 Caratoke Highway in Grandy, North Carolina. This is an example of single-family lots that were generally acquired by virtue of their abutting a golf course view, and then having it replaced by the view of solar panels.

The North Carolina Utilities Commission gave its approval for the facility in January 2015. Based on concerns from the neighbors regarding its incompatibility with neighboring residential lots, the Currituck County Planning Board denied Ecoplexus a permit in April 2016. The solar company filed suit, and in March 2017, a Superior Court judge upheld the county's decision to turn down the project. However, on appeal, the North Carolina Court of Appeals overturned the decision in December 2017. The project was constructed in 2019.

The solar farm is surrounded by 62 properties, which consist predominantly of single-family lots and improved tracts on Grandy Road and Uncle Graham Road. The east side, on Caratoke Highway, is predominantly improved with commercial tracts. The northern property line abuts a single-family subdivision, Carolina Club, that also encircles a second golf course.

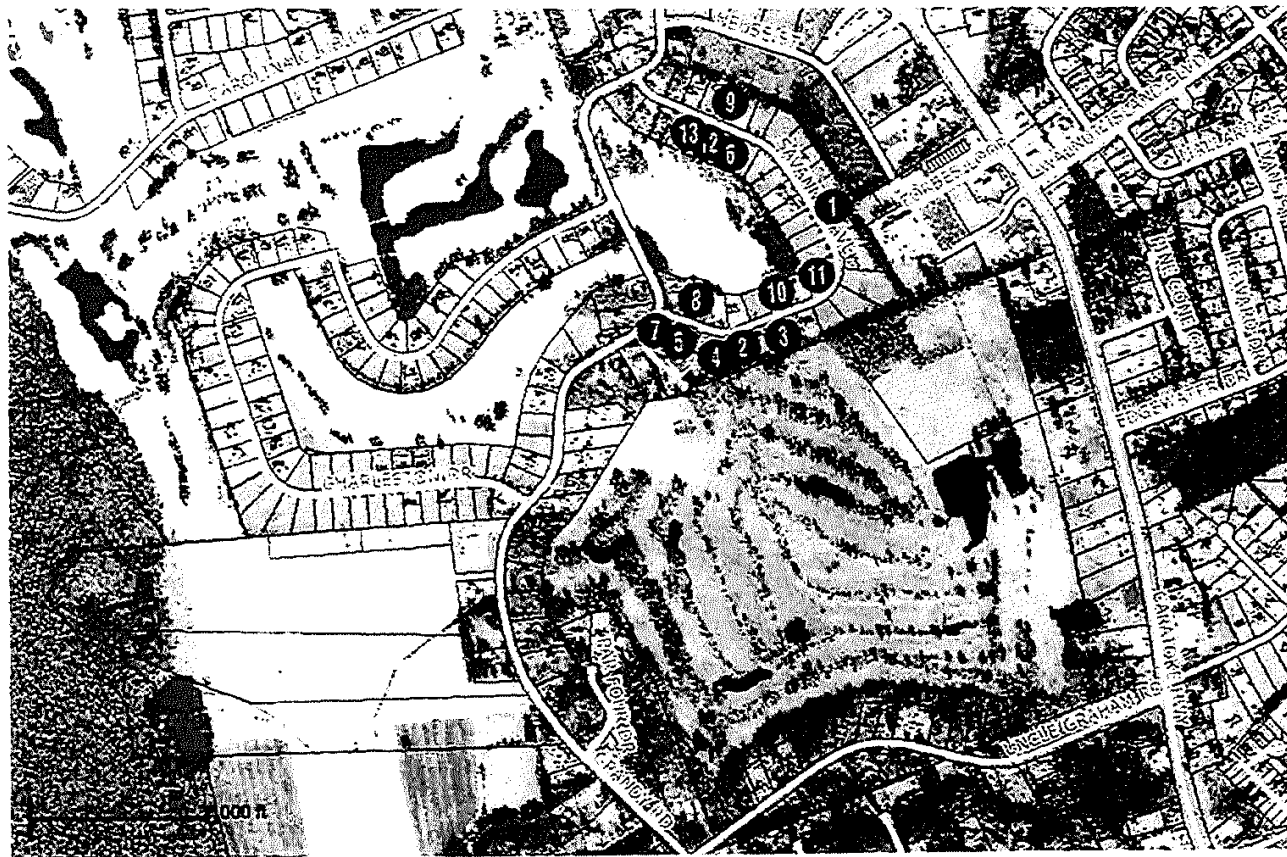
All the properties that encircle the solar farm were examined for sale-resales prior to and after the knowledge of the proposed golf course. Since there were no sale-resales, which are the most reliable measure of damage since they require the least adjustment, the only sale-resales available to analyze were the vacant lot sales from the adjacent Carolina Club Subdivision on Savannah Drive as indicated on the following map.

The following chart represents two groups of sales—those abutting the solar farm or commercial uses and those not abutting. Sale Nos. 1 through 5 represent the former, while Sale Nos. 6 through 13 represent the latter. Sales No. 1, No. 2 and No. 3 contain approximately 0.50 acre and sold in mid-2017 for \$27,000 to \$28,000, or an average of \$27,500. Sale No. 4 is larger, containing 0.870 acres and sold for \$29,500 during this same

GRANDY, NORTH CAROLINA SINGLE FAMILY LOT SALES

SALE	PARCEL ID	ADDRESS	GRANTOR	GRANTEE	DB/PAGE	SALE PRICE	LOT SIZE	SP/SF	SALE DATE	COMMENTS
Lots Abutting Solar Farm or Commerical Use										
1	94G-16	125 Savannah	George Mills	Earl Thomas Hall	1404-149	\$27,000	0.510	\$1.22	4/25/17	Abutts Commercial at Rear
2	94G-5	147 Savannah	Wm Weatherly	Branden Shuler	1404-848	\$27,000	0.580	\$1.07	4/28/17	Abutts Solar Farm
3	94-G	143 Savannah	Wm Weatherly	Roger Mihovch	1404-848	\$28,000	0.460	\$1.40	6/20/17	Abutts Solar Farm
4	94G-4	149 Savannah	Wm Weatherly	David A. King	1402-737	\$29,500	0.870	\$0.78	7/13/17	Abutts Solar Farm
5	94G-2	153 Savannah	Rodney Blake	G. Romero-Mendez	1465-529	\$30,000	0.510	\$1.35	12/10/18	2 Lots NW of Solar Farm
Lots Not Abutting Solar Farm or Commerical Use										
6	94G-35	112 Savannah	Jeff Weatherly	Frasca Custom Hms	1425-482	\$32,500	0.460	\$1.62	11/15/17	
7	94G-1	155 Savannah	Keith Ostrom	Hunter D. Wright	1447-837	\$35,000	0.490	\$1.64	06/15/18	
8	94G-5	142 Savannah	Michael Mills	Lutz Quality	1510-321	\$35,000	0.460	\$1.75	12/17/18	
9	94G-24	109 Savannah	John Peterson	Michael Locicero	1430-662	\$33,000	0.450	\$1.68	01/09/18	
10	94G-46	134 Savannah	Bernard Hall	Anthony Leete	1534-847	\$37,000	0.460	\$1.85	05/11/20	
11	94G-44	130 Savaanah	John Bergstrom	Scott Shaker	1601-332	\$38,500	0.610	\$1.45	02/23/21	
12	94G-34	110 Savannah	Jonathan Thau	Kelly Coon	1591-766	\$38,000	0.460	\$1.90	01/14/21	
13	94G-33	108 Savannah	Lina Ward	Joaqin Salazar	1618-635	\$37,400	0.460	\$1.87	04/27/21	

Currituck County GIS Data Viewer



County Boundary

— State

— County

Streets

Wright Memorial Bridge

—

Major Streets

— Arterial_Principal

— Arterial_Major

— Collector_Major

Parcels

□

Currituck County

Aerial Photography (2011)

■ Red: Band_1

■ Green: Band_2

■ Blue: Band_3

Currituck County GIS

Phone: (252) 232-2034

E-mail: gis@currituckcountync.gov

This map should be used for general reference purposes only. Currituck County assumes no legal liability for the information shown on this map.

period. Though Sale No. 5 did not abut the solar farm, it was only two lots to the northwest. This sale sold in late 2018 for \$30,000.

Sale Nos. 6 through 13 sold between late 2017 and mid-2021. These sales are 0.50 acre in size and ranged in price from \$32,500 in 2017 to \$38,500 in 2021.

Comparing the two groups of sales from 2017 indicates a range in price from \$27,500 to \$32,500, or a **difference of -15.38 percent**.

There is insufficient data to determine if the lots that adjoin the solar farm continue to increase in value at the same or a reduced rate as the rest of the local market, or if their value stabilized. Nonetheless, this case study indicates a minimal diminution of **-15.50 percent R** as a result of their proximity to the solar farm. This diminution in value reflects an ordinance that requires a **300.0 linear feet setback for the solar panels from the residential property line; no chemicals can be used to control vegetation throughout the life of the project; and the solar farm had to submit a decommissioning plan.**

Among the neighboring property owners' concerns during the permitting process was the potential damage to their residences in the case of a hurricane. The developer claimed that the arrays would withstand winds up to 120 miles per hour. However, the effect of Hurricane Dorian in 2019 was that dozens of frames and panels were mangled even though the storm was 50 miles offshore and the winds were 60 miles per hour. This is an example of the solar developer's misrepresentation and the unpredictable nature of the impact of an unstable structure occupying immense areas of land.

SPOTSYLVANIA SOLAR CASE STUDY – PAIRED SALES ANALYSIS

Spotsylvania Solar in northern Spotsylvania County Virginia, adjoining the 2,350 acre Fawn Leaf gated community to the south. The development consists of 1,398 single family lots with 900 residences and a 288.0 acre lake. Home prices range from the high \$500,000s to \$2,500,000. Of the 1,398 single family lots, 1,080 have sold, leaving a current inventory of 318.

Spotsylvania Solar is a 617 MW industrial scale electrical generating plant, comprised of four solar phases—Pleinmont 1, Pleinmont 2, Richmond and Highlander. The project sites contain a total of 6,350 acre of which 3,500 will be developed with solar panels. The developer is sPower who merged with AES in 2020. The project was announced in 2018 and approved in April 2019. Approximately half of the project was completed in July 2021 with the remaining anticipated to be completed in the fall of 2021. The surrounding areas to the east, west and south are rural, yet populated.

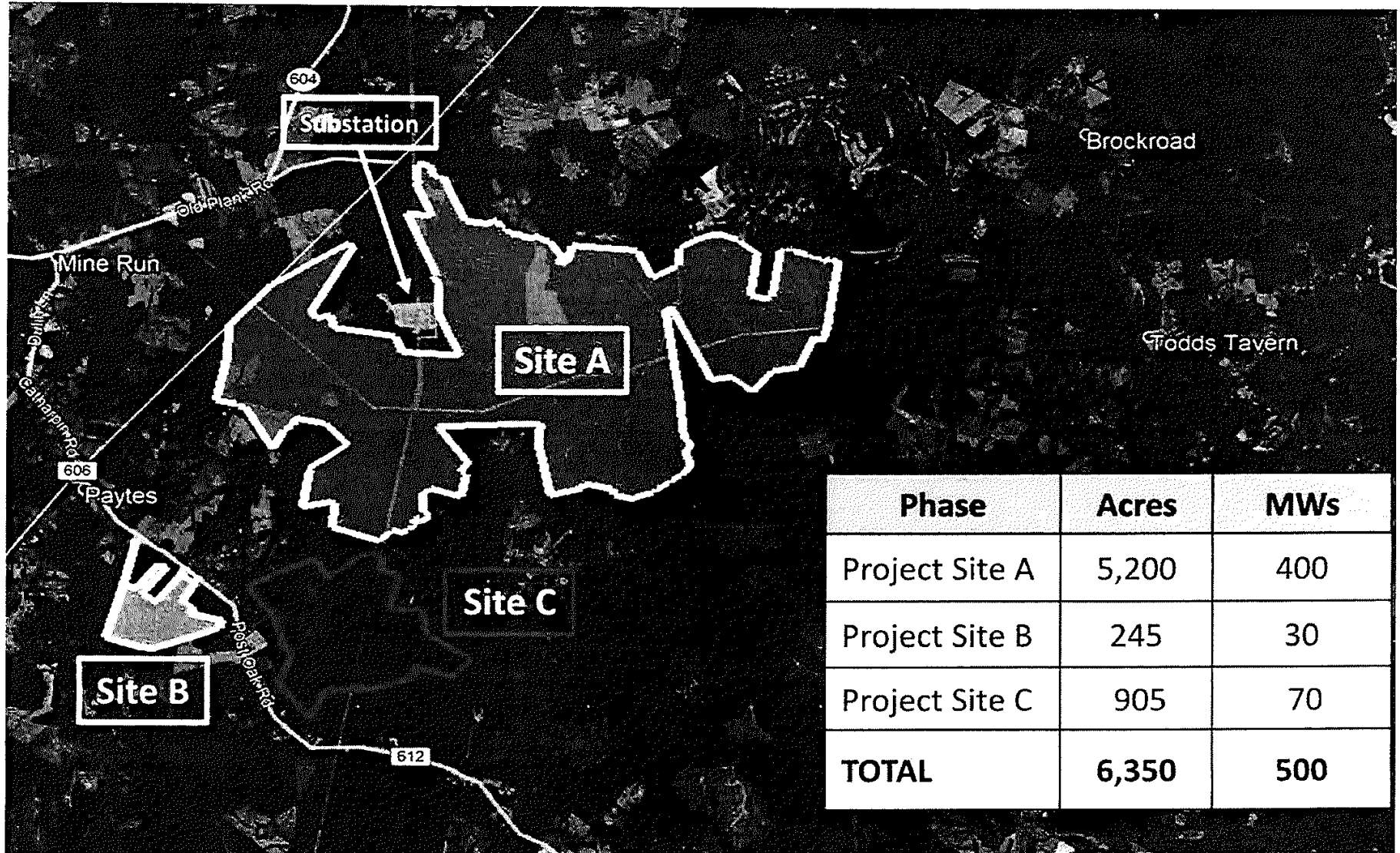
The northeastern most portion of Site A adjoins the Fawn Lake subdivision at the development's southwestern property line as indicated on the following aerial photograph. The chart following represents five land sales that occurred before and after the knowledge of the solar farm. A plat of the five lots follows.

Land Sales No. 1 and No. 2 occurred in 2015 indicating a range of values from \$85,000 to \$90,000 depending on size. Sale No. 3 is a 2017 sale that adjoins the site of the future solar farm, which is a slightly more remote location than the prior sales abutting the main road. This property sold for \$77,250.

Sale No. 4 and 5 represent land sales that occurred after the approval of the solar farm. Sale No. 4 is at the corner of the main road and are in Site A. The lots on Bander Way and Southview Hill are also in Site A. This sale sold for \$65,000, while Sale No. 5, which adjoins the solar farm sold for \$55,000.

Comparing Sales No. 3 and 5 without any adjustment for market change (time) indicates a diminution in value of a minimum of -30.0 percent.

Comparable Sale No. 3:	\$77,250
Comparable Sale No. 5:	<u>\$55,000</u>
Difference:	\$22,500, or -28.8, or -30.0 percent (R)



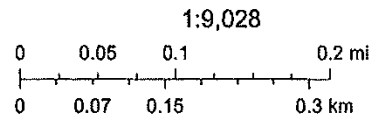
**FAWN LAKE LOT SALES
SPOTSYLVANIA SOLAR**

NO.	ADDRESS	GRANTOR	GRANTEE	DATE	PRICE	SIZE	SP/SF	DB INST	MAP	COMMENTS
1	11200 Brander Way	Simply Home LLC	Christopher Pichurko	03/17/15	\$90,000	32,470	\$2.77	0003 960	18C-43-1-205	Interior Lot, North of Brandermill Pk
2	11709 Southview CT	Simply Home, LLC	Bernard J. Logan	06/25/15	\$85,000	23,599	\$3.60	0010 297	18C-43-1-192	Interior Lot, North Side of Southview
3	11602 Southview CT	NA	Casey Pence	11/03/17	\$77,250	30,122	\$2.56	0019 899	18C-43-1-183	Adjoins Solar Farm, S. Side SV
4	11009 Southview HL	NA	Mark S. Wilson	08/05/19	\$65,000	26,893	\$2.42	0012 434	18C-43-1-177	SE Corner of Brandermill & SV HL
5	11700 Southview CT	NA	Charles Pattillo	09/27/19	\$55,000	32,958	\$1.67	0016 191	18C-43-1-185	Adjoins Solar Farm, S. Side SV



July 29, 2021

 Tax County Boundary



LANDSCAPING AND UTILITY SCALE SOLAR PROJECTS

One of the flaws in the impact studies prepared by solar developer's appraisers is the claim that the that the proposed screening of a 7.0 foot wire mesh fence with 1 feet of barbed wire and two rows of staggered 8.0 foot high evergreens at maturity would result in the solar facility being the scenic equivalent of the existing natural agricultural landscape.⁸⁵

In addition to my studies of McBride Place Solar, Grandy Solar (Sunshine) and Pleinmont Solar (Spotsylvania), I re-analyzed three of Richard Kirkland, MAI solar project matched pairs analysis. These include Mulberry Solar, Simon Solar and Candace Solar.

Mulberry Solar is a 16 MW plant in Selmer, Tennessee. The sales data included two similar sized sales—one 1.70 acre tract that adjoined the solar farm sold for \$14,000 (bracketed by a \$12,000 and \$16,000 sale) and two 1.67 acre tracts that sold for \$20,000 that did not adjoin the solar farm. These two examples met the test of comparability with exception of the solar farm, which is the definition of a proper paired sale. The difference between these two sales is -30.0 percent.

Simon Solar is a 30 MW facility in a rural area in Social Circle, Georgia. This paired sales analysis considers the effect of the solar plant on a 36.86 acre tract adjoining the solar plant to the south. The 36.86 acre tract was sold in two parcels that are separated by the access lane to two flag lots at the rear of the 20.5 acre tract adjoining the solar farm and the 16.36 acre tract to the southeast. The two lots fronting on Hawkins Academy Road were transferred in the same deed (DB 3891, Page 481) on March 31, 2016. An existing easement meanders through the two tracts what lead to the rear northwest flag lot which was originally owned by the grantor of both tracts. Presumably, the access lanes of the flag lots will provide the ultimate access to the rear residential tracts. The fact that the 20.5 acre tract and the 16.36 together sold as two platted tracts would offset the current easement access.

⁸⁵ Richard Kirkland, MAI states in the Letter of Transmittal to his Meade County, KY Solar Impact Study prepared for the Kentucky Siting Board on May 20, 2021 that, "The matched pairs analysis shows no impact on home values due to abutting or adjoining a solar farm as well as no impact to abutting or adjacent vacant residential or agricultural land where the solar farm is properly screened and buffered."

The combined 36.86 acres sold for a total of \$180,000, or \$4,883 per acre. This is also the same per acre value of each of the two individual lots.

The following graph depicts the 36.86 acre tract and the following three control sales selected by Kirkland.

<u>Address</u>	<u>Acres</u>	<u>Date</u>	<u>Sale Price</u>	<u>SP/Ace</u>
4514 Hawkins	36.86	03/31/16	\$180,000	\$4,883
HD Atha	69.95	12/20/16	\$357,500	\$5,111
Pannell	66.94	11/08/16	\$322,851	\$4,823
1402 Roy	123.36	09/29/16	\$479,302	\$3,885

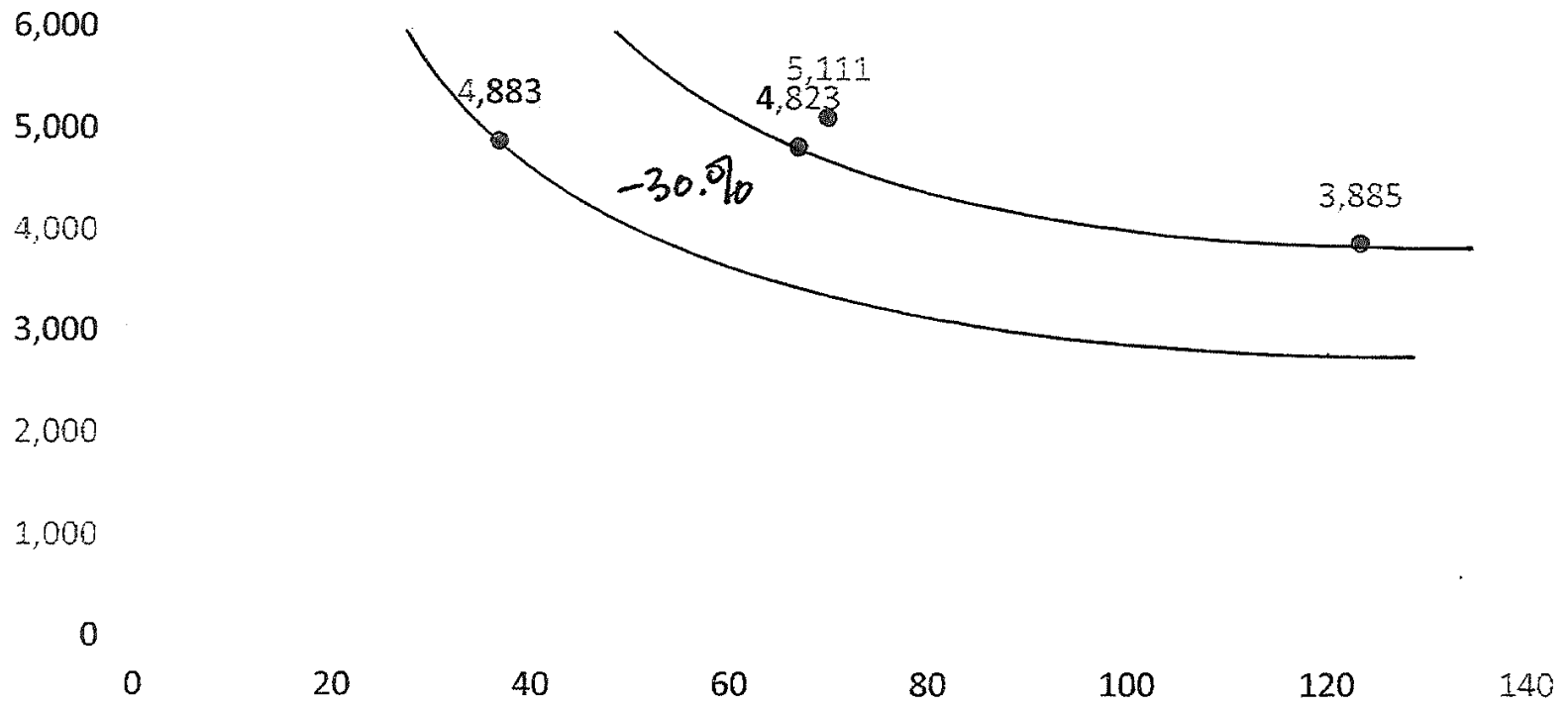
When graphed against the other three sales used by Kirkland, which were 2 to 3 times larger than the subject, the difference was -30.0 percent. The graph is on the following page.

The property line of this small agricultural tract was approximately 300.00 linear feet south of the nearest solar panel and had 100.00 foot mature tree stand between the property line and the solar farm. However, the elevation of the subject property was above that of the solar farm providing a view of the solar farm.

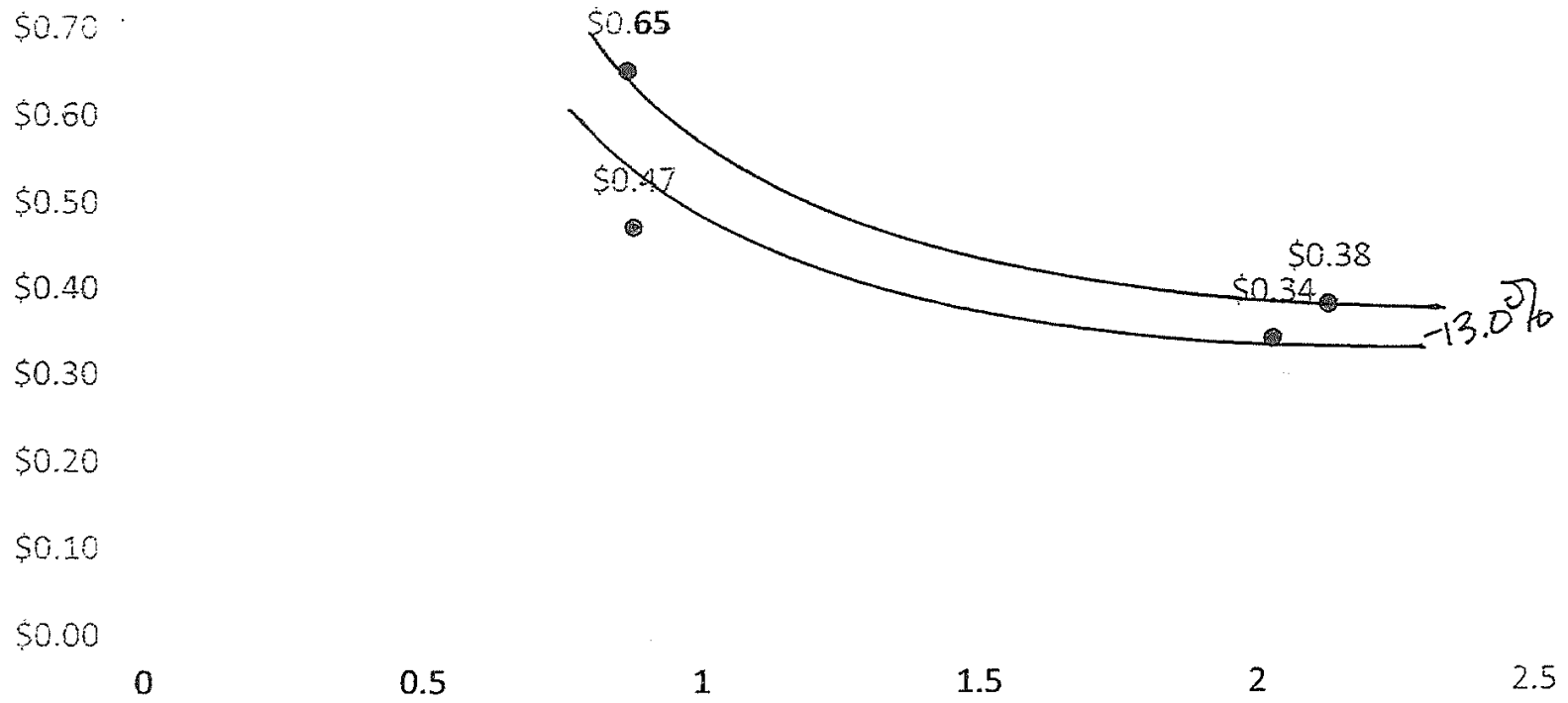
It is also notable that the -30.0 percent adjustment for this vacant agricultural tract corresponds to the -30.0 percent adjustment for vacant single family lots in the Selmer, Tennessee and Spotsylvania case studies.

Candace Solar, a 5 MW facility is in Princeton, North Carolina. This example is based on a 2.03 acre sale at 499 Herring Road that abuts the solar farm at its rear property line. The dwelling that was subsequently placed on it is within 450.0 linear feet of the nearest solar panel but separated by a 250.0 foot depth of dense woodland. Graphing the subject and the sales used by Kirkland indicates that the proximity of the subject to the solar farm resulted in a -13.0 percent diminution in value. This lesser amount is reasonable since the solar farm is at the rear of the property.

No. 11 Simon Solar



Candace Solar



<u>Address</u>	<u>Acres</u>	<u>Date</u>	<u>Sale Price</u>	<u>SP/SF</u>
499 Herring	2.03	05/01/17	\$30,000	\$0.34
37 Becky	0.87	07/23/19	\$24,500	\$0.64
Pannell	0.88	08/17/16	\$18,000	\$0.47
1402 Roy	2.13	12/20/16	\$35,000	\$0.38

The non-adjoining sales include an 0.87, an 0.88 acre tract and a 2.13 acre tract. The most relevant sale is the latter which is opposite the adjoining sale on the west side of Herring Road. It is 950.0 linear feet west of the solar farm and the front of this yard has a dense tree stand. Based on the following graph which depicts the per square foot values of the sales, the larger tract sold for \$0.38 per square foot while the smaller tract sold for \$0.34 per square foot. Adjusting the larger tract \$0.01 per square foot for size, based on the graph, to \$0.39 per square foot the indicated diminution in value for the adjoining lot is -13.0 percent. This indication is consistent with the McBride lots that had some woodland visual protection from the abutting solar farm, as well as the Grandy case study.

McBride Place, had four sale-resales of the same properties. Sale-resales are the most accurate method of determining damage because they compare an earlier sale of the same property with a later sale. The only difference being the addition of the solar farm. These three properties indicated a range of diminution in value from -15.51 percent to -16.44 percent. In addition, there was a fourth sale, although it did not have a prior sale with which to compare it. However, it is notable that the assessment was -16.81 percent lower than the recent sale post construction of the solar farm.

The Grandy Solar example, is based on the sales from the subdivision abutting the former golf course at its north property line. A comparison of the five sales that abut the solar farm of \$27,500 to eight sales within the subdivision that do not abut of \$32,500 indicates a consistent difference of -15.50 percent. The sales that abut the solar farm are approximately 400.0 linear feet from the nearest solar panel, with a setback of 300.00 feet. In addition, there is a 75.0' wide mature tree stand at the rear property line. This example indicates that the

value of residential lots with the solar farm at the rear and with a 300.00 foot setback and landscaping are damaged -15.50 percent.

The Pleinmont Solar Case Study is from a 6,412 acre solar farm in Spotsylvania County, VA. This office identified five lots that are in a section of Fawn Lake subdivision that adjoin the solar farm. Two of the sales abut the solar farm at their rear property line. Although these lots are wooded, the solar farm land was clear cut and the only barrier is that prescribed by the ordinance. The most recent lot abutting the solar farm sold for \$55,000 compared to the most comparable that did not abut at \$77,250. The difference between these two lots was -30.0 percent. This case study indicates that the greater the value the more adversely solar farms affect adjoining properties, all things being equal. Also, the less dense natural woodland buffer the more solar farms adversely affect adjoining properties. In other words, a couple of staggered rows of arborvitae, even at 8 feet, are not going to mitigate the negative impact of solar farms.

The following charts summarize the evidence refuting the solar developer's appraisers claim of no proximity damage with screening prescribed by ordinance.

Those case studies indicating damage of -15.0 percent were from McBride Place, Candace Solar and Grandy Solar. These analyses are of single family lots that abut the solar farm and have all have varying degrees of buffering in terms of tree stands or dense woodland.

<u>Solar Plant</u>	<u>Distance to Nearest Panel</u>	<u>Buffering</u>
McBride Place \$400,000+/- SFR	550.0', 350.0', 500.0+	400.0'+/- Dense Woodland
Candace Solar \$30,000 Lot	450.0'	250.0' Dense Woodland
Grandy \$28,000+/- Lots	400.0+/-	75.0' Mature Tree Stand

The case studies indicating -30.0 percent damage include Mulberry Solar, Simon Solar and Pleinmont Solar, which have minimal buffering or a clear view of the solar plant.

<u>Solar Plant</u>	<u>Distance to Nearest Panel</u>	<u>Buffering</u>
Mulberry Solar \$14,000 Lot	450.0'	Minimal Tree Stand
Simon Solar 36.86 Acres	300.0'	100.0' Mature Tree Stand Elevation Above Solar Farm
Pleinmont Solar \$55,000 Lot	Unknown	200.0' +/- Woodland Lot No natural Buffer-Ordinance

Based on the available documented evidence it is estimated that the solar farms adversely impact single family lots and improved residential properties -15.0 percent for properties that are within approximately 500.00 feet of the solar panels and have a dense mature woodland buffer of at least 75.0 feet.

The above data also indicate that solar farms adversely impact single family lots and agricultural tracts of up to 40.0 acres -30.00 percent for properties that are within 450.0 feet of the solar panels and have minimal natural buffering or a clear view of the solar facility.

CONCLUSION

The following charts and graphs summarize the current available known damage studies regarding utility scale solar facilities. The data is limited because few industrial generating plants in excess of 100 MW, though they have been approved for development, have been constructed. It also takes time for the market to react to this relatively recent trend. Nonetheless, the evidence is compelling and contradicts the claims by solar developers that there is no diminution in property value as a result of proximity to utility scale solar farms.

The previously discussed data is from two peer reviewed journals and includes case studies from appraisers in several states. Though diminution in value varies, as the result of a detrimental condition's impact upon a property's utility, the evidence presented by these case studies, indicates that utility scale solar farms damage property values by **at least -15.0 percent.**

One of the North Branch properties indicated as much as **-28.0 percent**. It is significant that this 9.90 acre property was the most impacted because its rear yard was encumbered by solar panels. A 30 year lease to the solar developer for \$6,240 annually was not enough to offset the decline in value because of the nuisance. This example illustrates the fact that the greater the impact of the solar farm, the greater the reduction in utility and the greater the resulting diminution in value.

The remaining case studies prepared by this office, (McBride, Sunshine and Spotsylvania) indicate a range of diminution in value from **-15.00 to -30.0 percent**.

The preponderance of evidence based on these empirical studies indicates that **industrial scale solar plants do negatively impact adjacent properties** to the extent that their utility, as interpreted by the market, is affected. For this reason, the **market considers solar powered electric generating facilities to be a detrimental condition**.

It is reasonable to anticipate that **utility scale solar farms larger than 100 MW** will have **greater negative impact**, particularly in areas where the unique quality of the landscape is a signature characteristic, such as the inner Bluegrass Region of Kentucky.

SUMMARY OF INDICATED VALUE DECLINE

DATE	STUDY	RESULT
2018	University of Texas	Assessor survey responses ranged from value impact of zero to estimation of negative impact associated with close distance between the homes and the facility, and impact increased with increased size of the solar plant.
2019	Nino Abashidze Disertation	Residential decline within 1.0 mile was -8.7% . Residential decline within 0.5 mile was -12.5% . No impact on farms. Study limited to solar farms less than 5 MW.
2020	University of Rhode Island	Average decline within 3.0 mile radius was -1.7% , or \$5,671. Average decline within 0.1 mile was -7.0% , or \$23,682. The "results suggest extremely large disamenities for properties in very close proximity."
2013	Fred H, Beck & Associates, LLC	Strata Solar Case Study: Potential Purchasers cancel contract upon learning of the solar facility. Clay County Case Study: Lot sales stopped after announcement of solar plant. Clay County Board of Equalization reduced affected property assessments -30.0% . Non-residential Use View Impariment Study: Adjacent incompatible use adversely impacted nearby properties -10.7% to -25.1% , or an average of -15.2% . AM Best Solar Farm Study: No diminution in value due to pre-existing industrial zoning for solar farm.
2020	Mark W. Heckman, R.E. Appraisers	Adams County View Case Study: The loss of view results in a -15% to -20.0% loss in value.

SUMMARY OF INDICATED VALUE DECLINE

DATE	STUDY	RESULT
2019	Madison County Indiana	Potential purchaser offered -16.43 % less than appraised value upon learing of the proposed solar plant.
2021	Mary McClinton Clay, MAI	North Star Solar Case Study: An Analysis of the 7 adjoining properties purchased by North Star PV, LLC. A sale-resale analysis of the sale prior to and subsequent to the purchase by the solar developer. The sale-resales indicate a range of diminution from -6.3% to -28.0% with a median decline of -16.9% and an average decline of -16.8% .
2021	Mary McClinton Clay, MAI	McBride Place Solar Farm Case Study: Analysis of 3 sale-resales and a comparison of the sale price and tax assessment. The sale-resales indicate -15.65%, -15.51% and -16.44 percent diminution in value. The sale price/tax assessment indicates a -16.81% loss of value.
2021	Mary McClinton Clay, MAI	Sunshine Farms Case Study: Analysis of 13 vacant single family lot sales from a subdivision that abutts a solar farm. The sales that adjoin the solar farm sold for -15.5% percent less than the lots that did not abutt the solar farm.
2021	Mary McClinton Clay, MAI	Spotsylvania Solar Case Study: Analysis of 5 vacant single family lots from a section of Fawn Lake Subdivision that abutts a 6,412 acre solar farm. The lots that abutt the solar farm sold for -30.00 percent less than those that did not abutt.
2020	Western Mustang Solar Neighbor Agreement	Monetary offer of \$17,000 to adjacent property owners to quel opposition to the proposed solar facility.

ADDENDUM

MARY MCCLINTON CLAY, MAI
218 Main Street
Paris, Kentucky 40361
859-987-5698

KENTUCKY ENVIRONMENTAL DAMAGE STUDIES

In the event that there is insufficient sales data within a subject area to extract an indication of diminution of value as a result of a specific detrimental condition, it is acceptable appraisal methodology to use another location with sufficient data or a similar detrimental condition with similar diminution upon utility as a proxy for the subject area or detrimental condition.

The following summary of environmental damage studies conducted by this office include the following detrimental conditions: ground water contamination by tannery sludge; animal odors; leaking underground storage tanks; cell tower and transmission line easements; fugitive particulate emissions (dust), and airport proximity.

GROUND WATER CONTAMINATION

The ground water contamination study was prepared for the plaintiffs in *Yellow Creek Concerned Citizens v. Middlesboro Tannery*. This study estimated the effect of tannery contamination on 350 properties along Yellow Creek, in Bell County, This study was conducted after city water had replaced well water in the affected watershed. The analysis compared affected sales along Yellow Creek and associated Williams Creek with three creeks upstream that were not contaminated. The multiple regression analysis found that there was residual diminution in value of **-16.5 percent** for improved properties and **-22.00 percent** for unimproved land.

ANIMAL ODORS

A damage study prepared for the case *James E. Sullivan, et al v. Board of Regents, et al* estimated the effect of an animal waste fermentation project at the Organic Pasteurization

Plant at North Farm of Murray State University on Sullivan's Executive Par 3 Golf Course and Sports Center and on-site residential improvements in Murray. An income analysis of the golf course before and after the construction of the "manure cooker" indicated that the golf course was damaged 28.00 percent. Based paired sales analysis of dwellings within proximity to chicken houses, it was estimated that the two residential improvements had diminution in value from **-21.0 to -28.0 percent**.

Two studies in western Kentucky measure the effect of hog barns on proximate vacant land and residential properties. The first study estimated the damage of hog barns on residential properties in five western Kentucky counties including Calloway, Graves, Carlisle/Hickman, Warren and Davies. Sales data to within 2.00 miles of hog barns were analyzed using matched pairs. The study indicated that vacant land values within one mile of a hog barn diminished approximately 40.0 percent, while improved properties declined between 26.7 and 11.00 percent depending on their proximity to the barn. This study was prepared for the case of *Gene Nettles, et al v. Environmental and Public Protection Cabinet; Division of Water, David Morgan, Director, and J.P. Amberg Hog Farm*.

The second study was prepared for the case *Terry Powell, et al v. Tosh, et al*. This study estimated the diminution of value as a result of proximity to 5,000 hog confined animal feeding operations (CAFOs) in Marshall County. The results of the paired sales study were that improved properties adjacent to or within approximately 0.25 miles to hog farms are damaged approximately **-50.0 percent**. Properties from approximately 0.5 mile to 1.25 miles are damaged **-25.0 percent**. Farms beyond 1.25 miles to 1.5 miles and/or those adjacent to agricultural fields that may experience routine manure spreading are damaged approximately **-10.0 to -12.0 percent**. Vacant land was damaged **-40.0 percent**.

LEAKING UNDERGROUND GASOLINE STORAGE TANKS

This study was prepared for the case *Terrence G. Kerschner, et al v. Burley Oil Company, et al*. The study estimated the effect of leaking underground gasoline storage tanks

on Country Lane Estates in Frankfort and, specifically, on a residence where the petroleum surfaced. The results of this study was that the property most affected by the leak was damaged **-100.0 percent**, with adjoining properties damaged **-50.0 percent** and the remaining properties within the subdivision were damaged **-20.0 percent**.

CELL TOWERS AND HIGH VOLTAGE TRANSMISSION LINES

The overhead transmission line study was prepared for the case *Kentucky Utilities Company v. James and Mary Jent, CDH Preserve, LLC and Farm Credit Services of Mid-America, FLC, Violet Monroe* and estimated the effect of High Voltage Transmission Lines on three Hardin County agricultural properties. The study was later expanded to include cell towers in a Bourbon County property division dispute.

The paired sales analysis indicated a range of diminution in value as a result of the encumbrance of high voltage transmission lines (HVTL) on agricultural properties. The amount of damage is the result of the degree to which HVTL impact the utility and degree of trespass upon the bundle of rights. The study indicated a range of diminution in value from minimal impact of **-12.0 percent** to a **maximum of -50.0 percent** depending on the placement of the easement within the property.

The study also indicated buyer resistance to lots impacted by HVTL. Two subdivisions in the same area were analyzed—one with and one without the encumbrance. The subdivision without the easement consists of 14 lots that sold from 2005 until 2011, with the absorption rate of 2 lots per year. The other is significantly encumbered by the transmission line. This subdivision consists of 16 lots of which only 6 have sold from 2007 to 2011, or 1.2 lots per year. The transmission line diagonally traverses the remaining lots, which had yet to sell when the study was conducted in 2012.

With respect to the effect of cell towers on agricultural property a paired sales analysis was made between two farms on opposite sides of the road in Bourbon County. The

analysis indicated a **-24.28 percent** damage to the farm. The comparison indicates buyer resistance and damage as a result of proximity to vertical structures similar to HVTL.

FUGITIVE PARTICULATE EMISSIONS

This study examined the condition of Claremont Acres, a single-family residential subdivision in the closest proximity to the Louisville Gas and Electric Plant (LG & E) at 5252 Cane Run Road in western Louisville. This four street subdivision was developed in the late 1960s and consists of predominantly 1,000 square foot masonry ranch houses with detached garages. The subdivision abuts a single row of dwellings which front along Cane Run Road on the south side of the street opposite the LG & E facility. The properties suffered from air borne dust contamination from coal ash landfills that were expanded in 2010. The most affected properties were 300 feet southeast of the ash pond, 2,500 feet from the ash landfill, and 3,000 feet from the stacks. The Claremore Acres properties that suffered from the dust, which the EPA tested were 0.31 to 0.45 miles from the Cane Run generating plant.

The study documented an **overall diminution in value of -25.8 percent for properties within approximately 0.50 mile of the source of the detrimental condition.**

PROXIMITY TO REGIONAL AIRPORT

This 2019 study of a Kentucky regional general aviation airport was prepared for the case, *Mary Williams v. Henderson City-County Airport Board*. The study examined three 5.00 acre residential subdivisions in the vicinity of the Georgetown-Scott County Regional Airport. The control subdivision was 1.75 miles southwest of the runway. The two impacted subdivisions were within 0.33 and 0.50 miles northwest of the runway.

The study indicated a **diminution of -20.5 percent as a result of being within 0.5 mile west of the beginning of the Runway Protective Zone (RPZ) and diminution of -20.18 percent for lots abutting the RPZ from approximately the mid-point to the end. Lots within the RPZ indicated a diminution of -50.15 percent.**

DRAINAGE AND EROSION

A 2021 storm water drainage study was prepared for the Henderson County, Kentucky case, *Patricia Kushino, et al v. Federal Aviation Administration, et al.* This study estimated the diminution in value of an 80.00 acre woodland that was part of the 183.90 acre Williams Farm. The property was negatively impacted by the construction of a drainage ditch from the adjacent regional airport. Prior to the drainage ditch the woodland had natural drainage and a healthy stand of hardwood trees. After construction it suffered from constant flooding and become non-productive. The estimated contributing value of the woodland prior to the damage was \$3,000 per acre and after construction, its contributing value was \$850 per acre, or a **loss of -72.00 percent.**

A 2012 drainage study was prepared for the Fayette County case, *Jerry Whitson v. Donnie Cross.* This study involved the diminution in value to a rural residential tract improved with a dwelling a horse barn used for layups at the Kentucky Training Center. The property was encumbered by drainage from a pond on the adjoining tract which accumulated for extended periods of time at the front of the horse barn. The extent of the drainage rendered the horse barn non-contributing to the overall property value based on the expectations of the rental market for stalls. Although the contributing value of the horse barn was \$55,000, the cost to cure was less at \$32,614. Therefore, the estimate of damages was **-13.0 percent.**

NEIGHBOR AGREEMENT

This Neighbor Agreement (the "Agreement") is made as of this ___ day of _____, 2020 (the "Effective Date"), by and between **WESTERN MUSTANG SOLAR, LLC**, a Delaware limited liability company ("Western Mustang") and *****

RECITALS

A. Owner owns the residential property located at *****, identified by Parcel Identification Number 000000000 (the "Property").

B. Western Mustang intends to study, develop and use certain property identified by Parcel Identification Number 00000000000 (the "Project Property"), which Project Property is adjacent to the Property, for a solar project (collectively, the "Project").

C. Owner has agreed to cooperate with Western Mustang's development, construction, and operation of the Project in accordance with the terms and conditions set forth herein.

D. The Owner is eligible for this Agreement because Western Mustang, LLC has determined that the Project Property is located on two or more sides of the Owner's residential Property.

AGREEMENT

NOW, THEREFORE, the parties agree as follows:

1. Cooperation. Owner shall fully support and cooperate with Western Mustang's development, construction, and operation of the Project, including in Western Mustang's efforts to obtain from any governmental authority or any other person or entity any environmental impact review, permit, entitlement, approval, authorization, or other rights necessary or convenient in connection with the Project. Without limiting the generality of the foregoing, in connection with any application by Western Mustang for a governmental permit, approval, authorization, entitlement or other consent related to the Project, Owner agrees not to oppose, in any way, whether directly or indirectly, any such application or approval at any administrative, judicial, or legislative level.

2. Consideration. All terms in this Section 2 shall be subject to Owner complying with this Agreement. Western Mustang shall pay Owner a signing payment of Two Thousand and 00/100 Dollars (\$2,000.00) within 45 days after the Effective Date. Within 45 days of the date when Western Mustang begins construction of vertical improvements for the Project and is diligently pursuing construction of the Project (such date being the "Construction Commencement Date"), Western Mustang shall pay Owner a one-time additional payment of Fifteen Thousand Dollars and 00/100 (\$15,000.00).

3. Merger. This Agreement, including any exhibits attached hereto, contains the entire agreement between the parties in connection with any matter mentioned or contemplated herein, and all prior or contemporaneous proposals, agreements, understandings and representations, whether oral or written, are merged herein and superseded hereby. No modification, waiver, amendment, discharge or change of this Agreement shall be valid unless the same is in writing and signed by the party against whom the enforcement thereof is sought

4. Confidentiality. Owner shall hold in confidence all information related to this Agreement and the Project (collectively, the "Confidential Information"). Owner shall not use any such Confidential Information for its own benefit, publish or otherwise disclose such Confidential Information to others, or permit the use of such Confidential Information by others for their benefit or to the detriment of Western Mustang. Owner may disclose Confidential Information to brokers, accountants and attorneys so long as such parties agree to not disclose the Confidential Information.

5. Attorney's Fees and Costs. Each party shall be responsible for their own costs and attorneys' fees in the event there is a dispute over this Agreement.

6. Governing Law. This Agreement shall be governed and construed in accordance with the laws of the State of Wisconsin.

7. Counterparts. It is anticipated that this Agreement will be executed in counterparts. This Agreement will, therefore, be binding upon each of the undersigned upon delivery to counsel for the parties of two or more counterparts bearing all required signatures.

8. Successors and Assigns. All provisions of this Agreement shall be binding upon and inure to the benefit of Western Mustang and Owner, and their respective successors, assigns, heirs, and personal representatives. Western Mustang may freely assign its rights and obligations under this Agreement without Owner's prior written consent; provided, however, that any such assignee is an owner or operator of the Project.

(Signatures on following page)

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed and delivered by their duly authorized representatives as of the Effective Date.

WESTERN MUSTANG:

WESTERN MUSTANG SOLAR, LLC, a
Delaware limited liability company

By: _____

Printed Name: _____

Title:

OWNER:

By: _____

Printed Name: *****

MISCELLANEOUS DATA

PURPOSE OF THE APPRAISAL

The purpose of the appraisal is to summarize the available damage studies that pertain to solar energy generation power systems, otherwise known as solar farms.

INTENDED USER AND USE OF THE APPRAISAL

The intended user is the addressee; and the intended use is for submission to the Madison County, Indiana Board of Zoning Appeals.

SCOPE OF THE REPORT

The scope of the report examines all available published and empirical evidence to document diminution in value as a result of proximity to industrial scale solar farms.

STATEMENT OF LIMITING CONDITIONS

1. Possession of this report or copy thereof does not carry with it the right to publication nor may it be used for any purpose by any but the applicant without the previous written consent of the appraiser(s), and in any event, only in its entirety.
2. The information contained in this report, gathered from reliable sources, and opinion is furnished by others, were considered correct, however, no responsibility is assumed as to the accuracy thereof.
3. The appraiser(s) is not required to give testimony in court with reference to the subject property unless further arrangements are made.
4. "The American Institute of Real Estate Appraisers conducts a voluntary program of continuing education for its designated members. MAI's who meet the minimum standards of this program are awarded periodic education certification." Mary McClinton Clay, MAI has completed this program.

CERTIFICATION

The undersigned does hereby certify that, except as otherwise noted in this appraisal report.

To the best of my knowledge and belief, the statements of facts contained in this appraisal report are true and correct.

The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions and conclusions.

I have no present or prospective interest in the property, which is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

Compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

I do not authorize the out-of-text quoting from or partial reprinting of this appraisal report. Further, neither all nor any part of this appraisal report shall be disseminated to the general public by the use of media for public communication without the prior written consent of the appraisers signing this appraisal report.

As of the date of this report, Mary McClinton Clay, MAI has completed the requirements of the voluntary continuing education program of the Appraisal Institute.

The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

Mary Clay performed the following functions on this appraisal report: 1) researched available data sources; 2) and wrote the appraisal report.

No one provided significant professional assistance to the persons signing this report.

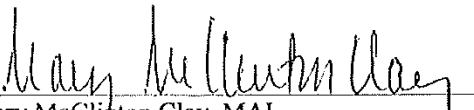
This report is in conformance with the USPAP Competency Provision.

The USPAP Departure Provision does not apply to this report.

The appraiser's employment is not conditioned on producing a specific value.

The owner or a representative of the property was interviewed. Interviews and research of necessary documents were conducted to confirm the accuracy of the supporting data.

No information pertinent to the valuation has knowingly been omitted.


Mary McClinton Clay, MAI

June 26, 2022

MARY MCCLINTON CLAY
PROFESSIONAL QUALIFICATIONS

Mary McClinton Clay, MAI
218 Main Street, Paris, KY 40361
859-987-5698/Cell: 859-707-5575
mclayky@bellsouth.net

Market Area: Commonwealth of Kentucky

Primary Practice Focus: Litigation and zoning support with an emphasis on damage studies, including environmental and eminent domain.

Appraisal Experience:

1985 to Present: Self-employed - engaged in commercial, industrial and farm valuation.
1979-1984: Employed by Realty Research - engaged primarily in income property appraisal.
1976-1979: Residential appraisal experience with fee appraisers.

Previous assignments include: Eastern State Hospital; Gateway Shopping Center; Lakeside Heights Nursing Home, N. KY; L&N Office Building, Louisville; Alltech Biotechnology Center, Nicholasville, Paris Stockyards; Conrad Chevrolet, Lexington; CSX Rail Yards in Mt. Sterling and Paris; First Baptist Church, Cold Spring; Lusk-McFarland Funeral Home, Paris; Feasibility Study of proposed Hamburg Place Office/Industrial Park, Lexington; Rent Analysis of IRS Service Center, Covington; Surtech Coating, Nicholasville; Clem Refrigerated Warehouse, Lexington; Bluegrass Manufacturing, Lexington; Finley Adhesives, Louisville; Central Manufacturing and Central Light Alloy, Paris; Review Appraisal of Rand McNally Plant, Versailles and Timberland Distribution, Danville; Old Scott County Jail; Millspring Battlefield; Truck Terminals, Fast Food Restaurants, Retail Centers, Lumber Mills, Car Wash, Multi-Family Residential, Mobile Home Parks, Convenient Stores and Subdivision Analyses.

Thoroughbred Horse Farms including Pin Oak Farm, Bunker Hunt Farms, Pillar Stud Farms, Elmendorf Farm, Summer Wind Farm, Hidaway Farm, Stoner Creek Stud, Runnymede Farm, Wilshire Farm, Lynnwood Farms, Stonereath Farm, Idle Hour Farm, Canefield Farm, Elk Creek Farm, Lochness Farm, Stoneleigh Farm, Elizabeth Station Farm.

Right of Way Experience: Rose Street Extension, Lexington, 1986-87; AA Highway: Greenup Co., 1989, Carter Co., 1990-91; U.S. 27 Campbell Co. 1991-1992, 1993; Bridge Realignment, Walton, 1992; Industry Rd, Louisville, 1993; 19th St. Bridge, Covington, 1994; U.S. 27, Alexandria, 1994; S. Main St., London, 1995; Paris Pike, Paris and Bourbon County, 1995-98; KY Hwy 22 at I-75, Dry Ridge, 1996; Bridge Projects on KY Hwy 19, Whitley County, 1997; US 150, Danville, 1998; US 460 Morgan Co., 1999; US 62 South, Georgetown, 2000; Bluegrass Pkwy and KY 27 Interchange, Anderson Co., 2001; KY 519, Rowan County, 2002; US 641, Crittenden County, 2005; US 25, Madison County, 2008-09; US 68, Bourbon County, 2009-10; Clark County, 2011; US 68 Millersburg By-pass, Bourbon County, 2012-13; US 119, Bell County, 2014-15; US 25, Madison County, 2016-17; Excess Land, Georgetown By-pass, 2020; Access Break, Industrial Drive, Lebanon, 2020; Excess Land, Bluegrass Parkway and Harrodsburg Road, Lawrenceburg, 2021.

Railroad Right of Way Experience: CSX in Floyd, Perry, Clark, Woodford, Franklin, Montgomery, Johnson, Magoffin, Breathitt, Fayette, Madison, Mason, and Bourbon Counties, 1987-2016.

Rails to Trails: Rowan County, 2005; Montgomery County, 2009, Franklin County, 2014; Floyd County, 2016.

MARY MCCLINTON CLAY
PROFESSIONAL QUALIFICATIONS

Environmental Damage Studies: *Yellow Creek Concerned Citizens v. Middlesboro Tannery*: effect of tannery contamination on 350 properties along Yellow Creek, Bell County, KY, 1988; *James E. Sullivan, et al v. Board of Regents, et al*: effect of Animal Waste Fermentation Project at the Organic Pasteurization Plant at North Farm of Murray State University on Sullivan's Executive Par 3 Golf Course and Sports Center, Murray, KY, 2003; West Farm Subdivision, Pulaski County: effect of contamination of groundwater from underground storage of dry cleaning solvents on residential lot values, 2004; *Gene Nettles, et al v. Environmental and Public Protection Cabinet: Division of Water, David Morgan, Director and J.P. Amberg Hog Farm*: Diminution of Value Analysis As a Result of Proximity to Hog Facilities in Daviess, Warren, Calloway, Graves, Hickman and Carlisle Counties, Kentucky, 2006; *Terry Powell, et al v. Tosh, et al*: Diminution of Value Analysis as a Result of Proximity to Hog CAFOs in Marshall County, KY, 2007; *City of Versailles v. Prichard Farm Partnership, Ltd.*: effect of sewage treatment pump station and ancillary easements upon Woodford County cattle farm, 2008; *Kentucky Utilities Company v. James and Mary Jent, CDH Preserve, LLC and Farm Credit Services of Mid-America, FLC, Violet Monroe*: the effect of High Voltage Transmission Lines on three Hardin County agricultural properties, 2011; *Terrence G. Kerschner, et al v. Burley Oil Company, et al*: the effect of Leaking Underground Gasoline Tanks on Country Lane Estates, Frankfort, KY, 2013; *Jerry Whitson v. Donnie Cross*: effect of Drainage Encroachment upon Adjacent Property, 2013; the effect of Cell Tower on Bourbon County Farm, 2014; *Steve D. Hubbard v. Prestress Services Industries, LLC*: effect of Fugitive Particulate Emissions upon a Single Family Dwelling, 2016; *Henderson City-County Airport v. Mary Janet Williams, et. al.*: the effect of Proximity of a Regional General Aviation Airport on Agricultural Values, 2019; *Patricia Kushino, et al v. Federal Aviation Administration, et al*: the effect of Stormwater Drainage on Woodland Value, 2021.

Additional Damage Studies:

Faulty Construction: 172 Post Oak Road, Paris, KY; 152 Cross Creek Drive, Paris, KY; Hartland Subdivision, Lexington, KY
Flood Damage: 208 Cary Lane, Elizabethtown, KY
Blasting Damage: Chicken Farm, Tolesboro KY
Super Fund Sites: KY Wood Preserving, Inc., Winchester, KY; River Metals Recycling, Somerset, KY
Industrial Scale Solar Farms: "A Summary of Solar Energy Power Systems Damage Studies as of May 25, 2021"

Expert Witness: Circuit Courts of Bourbon, Carter, Fayette, Franklin, Hardin, Laurel and Woodford Counties

Court Testimony:

Laurel Circuit Court: *Yellow Creek Concerned Citizens v. Middlesboro Tannery*, 1995.
Franklin County Circuit Court: *Richard McGehee v. Commonwealth of Kentucky Transportation Cabinet*, 2008; *Terrence G. Kerschner, et al v. Burley Oil Co., et al*, 2014.
Hardin County Circuit Court: *Richard McGehee v. Commonwealth of Kentucky Transportation Cabinet*, 2008.
Woodford County: *Horn v. Horn*, 2009
Bourbon County Circuit Court: Blasting Case, 1980s; Waterway Impediment Case, 2000; Faulty Construction, 2009, *Hadden v. Linville*, 2015.
Fayette County Circuit Court: Faulty Construction, 1980s; Bluegrass Manufacturing (Divorce Case), 1999, *Whitson v. Cross*: Drainage Encroachment, 2013.
Carter County: Condemnation for Commonwealth of KY Transportation Cabinet.

MARY MCCLINTON CLAY
PROFESSIONAL QUALIFICATIONS

Conservation and Wetland Easements: Bluegrass Heights Farm, Fayette County: Conservation and Preservation Easement; Wetland Easements in Pulaski, Lincoln, and Fulton Counties for NRCS.

Zoning Support: Solar Farm Conditional Use Permits: Hardin County, 2022, Clark County 2021; *John Vance, et al v. Paris City Commission* 2019; *Citizens for Progressive Growth and Development v. Paris Bourbon County Planning Commission* 2004-2007 and 2016; *Paris First v. Paris Bourbon County Planning Commission* 2003-2006; *Paris First v. Paris City Commission* 2002-2003; *Coppers Run Historic District, Inc. v. Abundant Life Worship Center* 1995; *Sugar Grove Farm v. East Kentucky Power* 1994-1996; *Lawrence Simpson, et al v. Harry Laytart* 1986-1996.

Professional Organizations:
Appraisal Institute: MAI, 1985; SRPA, 1982; SRA, 1980

Appraisal Institute Education Certification:
The Appraisal Institute conducts a voluntary program of continuing education for its designated members. I am certified under this program through December 31, 2023.

Education: Hollins College, B.A., 1972

Appraisal Education: Society of Real Estate Appraisers Course 101, 1977; SREA Course 201, 1978; SREA Course 301, 1981; AIREA Course VIII, 1979; AIREA Course VI, 1979; AIREA Course II, 1980; AIREA Course in Investment Analysis, 1980; AIREA Course in Valuation Litigation, March, 1986; Appraisal Institute Standards of Professional Practice, 1992; AIREA Comprehensive Examination, August, 1983; Courses in Real Estate Finance, Income Property Appraisal, Real Property Valuation, and Investment Analysis, 1977-1978, Eastern Kentucky University; Appraisal Institute Course 400G, Market Analysis/Highest and Best Use, 2008, Conservation Easement Certification, 2008.

Attended numerous seminars covering a variety of topics including investment analysis, feasibility and market analysis, eminent domain and condemnation, valuation of lease interests, component depreciation, risk analysis, current issues in subdivision and zoning law, Yellow Book and appraiser as expert witness.



LETTER TO THE EDITOR

Disappointed by federal reaction to inflation crisis

Inflation is at its highest level in decades, leaving far too many Hoosiers struggling to pay for necessities. And that's if they can even find the products they are looking for. This also is the fate of many businesses that consistently face overpriced and backordered items.

What's all the more frustrating is the reaction by the federal government.

That this took them by surprise and the belief that things wouldn't get this bad. In reality, our unfortunate path has played out as many economists predicted.

Those paying attention knew this would happen due to the various stimulus packages passed by Congress and pushed for by the executive branch. There were clear warnings that this was going to put too much money in the economy and there wasn't going to be enough supply to meet demand. Add to that the long list of supply chain

issues that were evident throughout the pandemic.

The rush to implement green energy policies is also to blame. These initiatives have directed suppliers to go the renewable energy route at the expense of petroleum production. Specifically, this has driven up prices at the pump and for anything related to oil. The Biden administration has simply tried to go too far too fast with its energy policy.

Energy costs are inherent to our economy since there is little those costs don't

touch. So any increase in those prices sets up a domino effect. Petroleum in particular is a key piece of many things we make - either directly in materials or through packaging such as plastics.

It's past time for the federal government to come up with concrete policies to help with the inflation crisis and not get wrapped up in the continued blame game that benefits no one.

Kevin Brinegar
President and CEO
Indiana Chamber
of Commerce

DO AGRONOMISTS AND SOIL SCIENTISTS SUPPORT SOLAR FARMS? WHICH EXPERT DO YOU BELIEVE?

Dear Farmers, Landowners, County Commissioners, County Planners, BZA Officials, and Fellow Citizens:

I am an Emeritus Professor in Mechanical & Aerospace Engineering who has worked in the Energy Field for 60 years, with a focus on energy efficiency, solar and power. In recent years, I have been receiving an increasing number of calls from citizens across the country concerned about the solar farms that are encroaching on their communities. This letter seeks to shed some light on the problems associated with this solar farm movement.

About five years ago, I was contacted by an Extension Agent in Eastern North Carolina. He called me because he was concerned about what was happening to his County. In his words, he said, "They're covering all my farmland with Solar Panels. I don't know what is going to happen to my County? We are a farming community. I don't know what the future holds?"

This Extension Agent called me because he knew that I was a solar advocate, having started the Solar Program at NC State University, having designed and built the NCSU Solar House and having founded the NC Solar Center. I told him that I would look into the matter and get back to him. I also told him that solar energy can be used in a number of different ways (e.g., to partially heat your home in winter, to heat domestic hot water, and to generate some electricity. And, I added, each solar application uses a different technology. Forty years ago, solar space heating and solar hot water heating were the rage, today its solar electricity, tomorrow who knows?)

As a consequence of this call from the County Extension Agent, I contacted Ag Specialists across NC, including University professors, members of the NC Department of Agriculture and Consumer Services, members of the Cooperative Extension Service, and some private Solar Farm Developers. To give the Extension Agent (who had called) the best answer, I felt that I needed to find someone who was skilled in agricultural research and also had hands-on experience with the farming community. After an extensive search, I found such a person in Professor Ron Heiniger, Professor and Extension Specialist at the NC State University Vernon James Agriculture Research Center in Plymouth, NC. Dr. Heiniger is an **Agronomist and Soil Scientist**, who in addition to his research also has regular contact with the farmers. (Heiniger's credentials and contributions to published studies and articles are attached to this article.)

After an in-depth study of the Solar Farm issue, Dr. Heiniger called me and said, "The Extension Agent is correct. He has reason to be concerned. This is a problem that is only going to get worse." Then that afternoon, Dr. Heiniger sat down and wrote his now well-known paper "**Solar Farming: Not a Good Use of Agricultural Land.**" That occurred almost five years ago.

In his paper, Heiniger focused on the following four points:

- Fact 1. Solar farming will change the future productivity of the land.
- Fact 2. Because of this lost productivity and the resulting changes in the farming communities caused by the loss of Land, it is highly unlikely this land will ever be farmed again.
- Fact 3. You (the land owner or the County) could be stuck with the cost of decommissioning these solar farms.
- Fact 4. Solar farming is not a good use of our land.

It is important to note that the Solar Farm Industry soon recognized that the Heiniger paper posed a *REAL THREAT* to their plans to install solar farms as rapidly as possible across the land (while the solar tax credits were still in effect).

- **The Solar Farm Industry's challenge thus became, "How can the Heiniger paper be neutralized?"**

To understand the Solar Industry's strategy, I have to introduce two organizations that are crucial to its success in North Carolina. These organizations are: **NC Clean Tech** and the North Carolina Sustainable Energy Association (**NCSEA**)

- **Clean Tech** is a solar policy and promotion organization housed in the Engineering College at NC State. It is not affiliated with any engineering or agriculture academic department.
- **NCSEA** is the primary solar lobbying organization in North Carolina and has been successful in getting solar friendly legislation passed in the NC General Assembly.
- The Director of **Clean Tech** is a lobbyist by trade and experience, having served in that capacity prior to coming to North Carolina. He also serves as a Director on the Board of **NCSEA**.
- Thus, in a sense, Clean Tech and NCSEA are joined at the hip.

In 2017, about a year after Heiniger's paper came out, Tommy Cleveland, a former engineering student of mine was employed by Clean Tech and was given the assignment of creating a document that could be used to neutralize the Heiniger paper. This document would be called "Balancing Agricultural Productivity with Ground-based Solar Photovoltaic (PV) Development."

→This assignment created a problem for Cleveland and Clean Tech, since neither had any expertise in Agronomy and Soil Science.

In a last ditch attempt for credibility, Clean Tech decided to contact the NCSU Cooperative Extension Service for input, but then chose not to use COOP's recommendations.

→When Cooperative Extension asked to review and edit the "Balancing " document, Clean Tech denied that request.

→In Tommy Cleveland's last minute attempt for credibility, he claimed (in his written testimony to the Madison County Board Of Zoning Appeals) that the "Balancing.... " document was published by the Cooperative Extension. That was another lie as can be seen on the cover page of the "Balancing.... " document, which has NC CLEAN ENERGY Technology Center boldly printed across the top.

→Tommy Cleveland no longer works for Clean Tech and has since moved on to work for Advanced Energy. Two other Clean Tech employees met with Dr. Heiniger to discuss their white paper. He asked them if they had consulted with any other agronomists at NC State about this issue. They indicated they had not. Furthermore, Heiniger indicated that their conclusions were incorrect and should not be published. Heiniger also stated that without additional input from other Agronomists, the paper could not possibly be considered "extensively peer-reviewed."

In summary, **this is simply an indication of how Clean Tech and NCSEA do business.** These claims are consistent with the lies and propaganda that are common with organizations associated with the Solar Farm Industry. It is important for all Landowners and County officials to check the credentials of those

who are writing such documents to ensure that you are receiving advice from the true experts. We don't seek a mechanic when we need a heart transplant, a car salesman when we need an attorney, or an engineer when we need an Agronomist/Soil Scientist.

We all have to continually question a Solar Farm Developer's statements and promises. This has become a national problem. We have to always be on the lookout for mis-statements, half-truths and flat-out lies. If you are not careful, you may lose your land, your community, and your way of life.

Sincerely,

Herbert M. Eckerlin

MADISON COUNTY BOARD OF ZONING APPEALS

IN THE MATTER OF PETITION 2019-SU-001
BY LONE OAK SOLAR ENERGY, LLC

AMENDED ORDER TO CORRECT SCRIVENER'S ERROR

Comes now the Madison County Board of Zoning Appeals ("BZA"), and after receiving written and oral evidence at a April 23, 2019 hearing, as well as the continuation of that hearing on both May 16, 2019 and May 28, 2019, now states the following:

1. Board Members Don Pine, Beth Vansickle, Jerry Stamm, and Vice Chair John Simmermon were present during the April 23, 2019 hearing, as well as both continuations thereof. Chair Mary Jane Baker did not participate or attend the hearing.
2. After considering all oral and written evidence, the BZA hereby, pursuant to a 3-1 vote, APPROVES 2019-SU-001 submitted by Petitioner Lone Oak Solar Energy, LLC.
3. The BZA hereby adopts the Findings of Fact for Special Use contained in the May 28, 2019 Staff Report of the Madison County Board of Zoning Appeals, which is attached hereto as Exhibit "A."
4. The BZA's adoption of the Findings of Fact for Special Use are contingent on the Board's Conditions for Adoption of Findings of Fact, which are attached hereto as Exhibit "B."

SO APPROVED ON THE 28TH DAY OF MAY, 2019

/s/ JOHN SIMMERMON
JOHN SIMMERMON, VICE CHAIR
MADISON COUNTY BOARD OF ZONING APPEALS

This Amended Order is issued to correct a Scrivener's error contained in Condition #7 of the "Conditions for Adoption of Findings of Fact".

June 28th, 2022 BZA



MADISON COUNTY PLANNING COMMISSION
16 E 9th Street, Box 13, Anderson, IN 46016
Ph: (765) 641-9541 Fax: (765) 648-1361
www.madisoncounty.in.gov
NO PARTIAL FILINGS WILL BE ACCEPTED

For Office Use Only
Case #: 2019-SU-005
Hearing Date: 5-24-22
Date fee paid: 5.00-22
Receipt #: 34500
Approved _____ Denied _____

MODIFICATION OF CONDITION RE: PREVIOUSLY APPROVED SPECIAL USE (EXCEPTION)

Property Owner Owner name: <u>Multiple (see property owners list)</u> Address: _____ Phone no(s): _____		Petitioner Information Petitioner name: <u>Lone Oak Solar Energy LLC</u> <u>c/o Daniel Goldstein</u> Address: <u>One South Wacker Drive, Ste. 1800</u> <u>Chicago, IL 60606</u> Phone no(s): <u>312-582-1573</u> <u>dgoldstein@invenergy.com</u>	
Attorney/Contact Person and Project Engineer (if any) Name: <u>Mary E. Solada, Esq.</u> <u>Dentons Bingham Greenebaum LLP</u> Address: <u>10 West Market Street, Ste. 2700</u> <u>Indianapolis, IN 46204</u> Phone no(s): <u>317-635-8900</u> <u>mary.solada@dentons.com</u>		Name: _____ Address: _____ Phone: _____	
Attachments <input checked="" type="checkbox"/> Completed Application <input checked="" type="checkbox"/> Copy of Most Current Deed with Legal Description <input type="checkbox"/> Letter of intent <input type="checkbox"/> Site plan-drawn to scale (10 copies on 11x17 Paper) <input checked="" type="checkbox"/> Application Fee		CRITERIA 1. The proposal will not be injurious to the public health, safety, morals, and general welfare of the community; 2. The requirements and development standards for the requested special use as prescribed by this Ordinance will be met; 3. Granting the special use will not subvert the general purposes served by this Ordinance and will not permanently injure other property or uses in the same district and vicinity; 4. The proposed use will be consistent with the character of the zoning district in which it is located and the Madison County Comprehensive Plan	
For Office Use Only <input type="checkbox"/> Notice of Public Hearing <input type="checkbox"/> Affidavit of Publication of Legal Notice <input type="checkbox"/> Affidavit of Notice to Interested Parties			

Project Information
Township & Section: Pipe Creek and Monroe – Multiple Sections (see property owners list)
Acreage or lot size: approximately 1.249 acres Parcel #: Multiple (see property owners list)
Address/location: Multiple (see property owners list)
Current zoning: Agriculture Current Use Agriculture
Nature of condition modification: Modify condition #19 Case 2019-SU-005 to replace with "The Project shall be complete and operational on or before December 31, 2025."

The undersigned states the above information is true and correct as (s)he is informed and believes.

Signature of Applicant: Michael Kaplan Date: May 5/20/2022
OFFICIAL SEAL OF NOTARY PUBLIC
 Michael Kaplan, Vice President,
 Lone Oak Solar Energy LLC

State of Illinois)
County of Cook) SS: Subscribed and sworn to before me this 20th day of May, 2022

Melanie Frank / Melanie Frank
Notary Public Printed Name
Residing in COOK County, IL My Commission expires: 6/3/2023



LETTER OF INTENT
LONE OAK SOLAR ENERGY LLC
MADISON COUNTY, INDIANA

Modification of Condition #19 of 2019-SU-005

Lone Oak Solar Energy LLC (the "Applicant"), by Mary E. Solada (Attorney), requests a modification of Condition #19 of 2019-SU-005 to provide for the previously approved solar farm to be completed and operational on or before December 31, 2025.

A Special Use was approved by the Madison County Board of Zoning Appeals (the "BZA") on September 24, 2019 to provide for the development of a solar farm to be known as Lone Oak Solar (the "Project"). Situated on approximately 1,249 acres in Pipe Creek and Monroe Townships in northern Madison County, the BZA approved the Project subject to nineteen (19) conditions.

Condition #19 of the 2019 BZA approval stated that the Project was to be completed and operational on or before December 31, 2023. However, two unique occurrences in the interim have prevented compliance with this condition. The inability to comply with this single condition is the result of circumstances outside of the control of the Applicant.

First, a period of time-consuming litigation was undertaken, causing a significant delay. This litigation has been satisfactorily completed, and found in favor of the Applicant. Additionally, a series of unprecedented challenges have been presented related to disruptions in the global supply chain. These supply chain challenges are the result of a variety of outside circumstances, including the recent pandemic which swept the world shortly after the 2019 BZA approval.

These circumstances, all completely outside the control of the Applicant, have required the Project to be delayed accordingly. As a result, a modification of Condition #19, to allow the Project to be constructed and operational on or before December 31, 2025, is not only necessary, but also warranted, justified, reasonable, and appropriate.

The Applicant will comply with all other conditions as required by the 2019 Special Use approval.

**MODIFICATION OF CONDITION
FINDINGS OF FACT**

Petitioner: LONE OAK SOLAR ENERGY LLC
Project Contact: Daniel Goldstein, dgoldstein@invenergy.com, (312) 582-1573;
Mary Solada, msolada@bgdlegal.com, (317) 635-8900.

Request: Modification of Condition #19 regarding previously approved petition 2019-SU-005.

Location: Pipe Creek and Monroe Townships (approximately 1,249 acres).

Special Use petition 2019-SU-005 was approved by the Madison County Board of Zoning Appeals (the “BZA”) on September 24, 2019 to provide for the development of a solar farm to be known as Lone Oak Solar (the “Project”). Situated on approximately 1,249 acres in Pipe Creek and Monroe Townships in northern Madison County, the BZA approved the Project subject to nineteen (19) conditions.

Lone Oak Solar Energy LLC, by Mary E. Solada (Attorney), properly filed, advertised, and notified a request for a modification of Condition #19 regarding petition 2019-SU-005 to provide for the previously approved Lone Oak solar farm to be completed and operational on or before the later of i) December 31, 2025 or ii) 2 years after issuance of a final non-appealable order of a court of competent jurisdiction affirming the condition modification by the BZA.

Lone Oak Solar Energy LLC has affirmed that the solar farm will otherwise be constructed and operational in compliance with all the other conditions imposed by the BZA approval of 2019-SU-005.

Although Condition #19 of 2019-SU-005 stated that the Project was to be completed and operational on or before December 31, 2023, two unique occurrences in the interim have prevented compliance with this condition.

These delays are the result of circumstances beyond the control of Lone Oak Solar Energy LLC.

A period of time-consuming litigation caused significant delay beyond the control of Lone Oak Solar Energy LLC. Subsequently, all reviewing courts have found in favor of Lone Oak Solar Energy LLC.

A series of time-consuming and unprecedented development-related challenges have occurred, resulting in severe global supply chain challenges beyond the control of Lone Oak Solar Energy LLC. The recent global pandemic, which swept the world shortly after the BZA approval of 2019-SU-005, is hereby recognized as one significant reason for these supply chain challenges and related delay.

Taken together, these uncontrollable circumstances support the requested modification of Condition #19 accordingly. Given these circumstances, the modification of Condition #19 to allow the Project to be constructed and operational on or before the later of i) December 31, 2025 or ii) 2

years after issuance of a final non-appealable order of a court of competent jurisdiction affirming this condition modification, is hereby deemed to be warranted, justified, reasonable, and appropriate.

The Lone Oak Solar Energy LLC request for a modification of Condition #19 of 2019-SU-005 is hereby Approved.

Dated: June 28, 2022

**-AFFIDAVIT OF NOTICE TO INTERESTED PARTIES-
Public Hearing of the Board of Zoning Appeals**

STATE OF INDIANA)
COUNTY OF MADISON) SS:

I/We, Lone Oak Solar Energy, LLC, c/o Daniel Goldstein by Mary Solada of Dentons Bingham Greenebaum LLP, Petitioner for multiple owners (list available at the Madison County Planning Dept. of Owners, DO HEREBY CERTIFY THAT NOTICE TO INTERESTED PARTIES OF THE PUBLIC HEARING BY THE BOARD OF ZONING APPEALS, to consider the application

Of: Lone Oak Solar Energy, LLC, Petitioner
(Name of person on application)

Requesting a modification of the Special Use granted in 2019.

For Property Located at: Multiple Locations list available at the Planning Dept. Office will be sent to the last known address as verified by your organization, and a CERTIFICATE OF MAILING (proof from Post Office) for each owner will be provided to this office no less than 3 days prior to the meeting date and that said notices were sent by certified mail or with certificate of mailing on or before the 17th day of June, 2022, being at least ten (10) days prior to and not more than 20 days prior to the date of the Public Hearing.

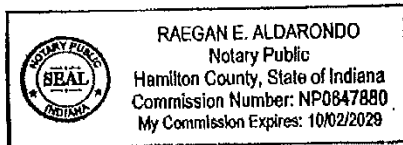
Mary Solada
Petitioner/Representative Lone Oak Solar Energy

State of Indiana)
County of Madison) SS:

Subscribed and sworn to before me this 24th day of June, 2022.

Raegan E. Aldarondo, Raegan E. Aldarondo
Notary Public Printed

Residing in Hamilton County My Commission expires 10/02/2029



AFFIDAVIT OF CONSENT

The undersigned, as Vice President of Lone Oak Solar Energy LLC, a Delaware limited liability company, as developer of Proposed Lone Oak Solar project ("Project") in Madison County, Indiana, hereby affirms under oath that the listing set forth as Exhibit A attached hereto of name and address of all Project property owners ("Owners") is true and accurate; and

Further, that the Leases and/or Neighbor Agreements entered into by and between Developer and Owners each contain a provision in the form attached hereto as Exhibit B which allows the Developer to submit any and all necessary zoning and permitting applications relative to the Project on behalf of the Owner.

FURTHER AFFIANT SAITH NOT

I affirm, under penalties of perjury that the foregoing representations are true to the best of my knowledge.

LONE OAK SOLAR ENERGY LLC

May 5/20/2022, 2022

DocuSigned by:
Michael Kaplan
By: Michael Kaplan
Printed: Michael Kaplan
Title: Vice President

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<p>7021 1970 0000 0778 6416</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Lawrence & Delores A Leeman 10514 North 600 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6579</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Terry Lee & Jennie Joe Crull 5747 West 1000 North Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5084</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Floyd & Ruby Closser 8643 N 150 E Alexandria IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5091</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Cory J & Janelle M Bohlander 13771 North 500 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5107</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Welborn Cemetery c/o Pat Hoose Pipecreek Twp Trustee 208 South Anderson Street Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5695</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Curtis L. & Rebecca Harrison 10672 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5688</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Steven & Beth LaShure 11261 N 500 W Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6269</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Kenneth J Bemis 10074 North 600 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6272</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Zachary E & Kyrsten A Wood 10186 North 600 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5138</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Kimberly Anderson 11719 N 450 W Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5121</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Tony A New 5836 West 1000 North Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5114</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>William J & Paula S Auler 10112 North 600 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>

<p>7021 1970 0000 0785 5701</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Candye Elaine Dickey 10643 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5716</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Ross E & Katrina S Hunter 10040 North 500 West Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5077</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Richard & Shelly Leisure 11370 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0778 6203</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Melvin K & Darlene Wittkamper 10914 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6210</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Jeffery A Forrer 10590 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6227</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Thomas Joe & Charlene F Heath 10335 North 500 West Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0778 6234</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Charles Wendell Bond & Michael Ray Bond J/T R/S 10728 North 24th Street Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5163</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>John & Henrietta Campbell Rev Trust 6178 West 1000 North Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5169</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Brittany Farms, LLC P.O. Box 83 Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5176</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Mitzi Ann Wisler 9262 West 1100 South Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5565</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Derek M Glass 4556 West 1300 North Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5572</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Joshua Harris 12759 N 500 W Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0778 6265</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Cindy S Pruitt 10194 North 550 West Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6256</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>Gene P & Pamela J Elliott 10554 North 600 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6211</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$</p> <p>Postmark Here</p> <p>AEP Indiana Michigan Transmission Company, Inc. P.O. Box 16428 Columbus, OH 43216</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>

<p>7021 1970 0000 0785 5190</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Jolores S & John Wm Campbell 6178 West 1000 North Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5361</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Robert Kelly 13013 N 300 W Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5374</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>MGR Agricultural Holdings 3812 W 1000 N Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5367</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Sigler Farms, Inc. 6730 West State Road 128 Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5619</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Edward & Patricia Everling 12644 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6197</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Jeffery L & Donna R Sizelove 5388 West 1000 North Frankton, IN 46066</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5602</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>John M Richwine & John W Richwine 7716 West 900 North Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5596</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Tracey Sue Huggins 12791 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5589</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>John W Canfield 7445 North 600 West Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5442</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Casey J Forester 12321 North 350 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5435</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Phillip R & Linda C Pratt 12552 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5428</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Keith & Tricia Kelich 13131 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5398</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Charles P & Tamara B Davis 12064 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5404</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Zachary L Kendall 12489 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5411</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total P \$ Send To Street & Apt. No. City, State, ZIP+4®</p> <p>Murry D Owen 12467 North 600 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions</p>

<p>7021 1470 0000 0776 5457</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Timothy & Bethany Keller 3764 West State Road 28 Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5458</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Lee & Tasha Walls 4955 West 1060 North Frankton, IN 46044</p>	<p>7021 1470 0000 0776 5455</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>William E. & Laina B. & Dean A. Fisher 10952 North 400 West Alexandria, IN 46001</p>
<p>7021 1470 0000 0776 5454</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>David & Jane Burton 11637 North 300 West Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5457</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Mary Hobbs 12848 North 350 West Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5470</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Kevin A. Fix 5369 West 1000 North Frankton, IN 46044</p>
<p>7021 1470 0000 0776 5456</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>David L. & Debbie M. Mumbower 10750 North 400 West Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5451</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Jeff Sizlove 4346 West 1150 North Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5454</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Red Gold, Inc. P.O. Box 83 Elwood, IN 46036</p>
<p>7021 1470 0000 0776 5461</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>H. Larry & Carolyn J. Welborn 6903 West Division Line Road Delphi, IN 46023</p>	<p>7021 1470 0000 0776 5478</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Patrick Dayton 5034 West State Road 28 Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5465</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Nicholas & Emily LaShure 12919 N 400 W Alexandria, IN 46001</p>
<p>7021 1470 0000 0776 5475</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Jim & Patricia Humphries 12081 North 300 West Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5406</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Donald W. Irick, Darrell Stonebarger 11647 N 450 W Alexandria, IN 46001</p>	<p>7021 1470 0000 0776 5492</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: _____</p> <p>PS Form 3800, April 2013 PSN 7530-02-000-9001 See Reverse for Instructions</p> <p>Postmark Here</p> <p>Colt Reichart 10066 North 400 West Alexandria, IN 46001</p>

<p>7021 1970 0000 0785 5336</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Allissa Flick 11522 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0785 5343</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Mattie Lucille Tarter 11568 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0785 5350</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To James Huffman 4573 N. SR 28 Alexandria, IN 46001</p> <p>PS Form 3800, A</p>
<p>7021 1970 0000 0785 5022</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Virgil L. & Kaye D Canfield 7445 North 600 West Frankton, IN 46044</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0785 5039</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Rex, Dianna & Dan Etchison 5207 West 1100 North Frankton, IN 46044</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0785 5046</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Robert, Linda & Mitchell Cain 11233 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>
<p>7021 1970 0000 0785 5053</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To T&E Heath Fanns, Inc. 10335 North 500 West Frankton, IN 46044</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0785 5060</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Timothy D & Rachel L Friend 11450 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 5256</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Michael Jr & April Schinlaub 11405 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>
<p>7021 1970 0000 0778 5302</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Edward C & Cynthia Rose Hamilton 11575 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 5722</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Kay, John, Virgil Canfield 7445 North 600 West Frankton, IN 46044</p> <p>PS Form 3800, April 2015 (PSN 7530-000-300-4) See Reverse for Instructions</p>	<p>7021 1970 0000 0778 5739</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Millstream Farm, Inc 5608 West 1100 North Frankton, IN 46044</p> <p>PS Form 3800, April 2015 (PSN 7530-000-300-4) See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5305</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Kylee Carr 4153 W. SR 28 Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0785 5312</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Ronald Jr. & Rebecca Rathert 4181 West State Road 28 Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0785 5329</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) \$ <input type="checkbox"/> Return Receipt (electronic) \$ <input type="checkbox"/> Certified Mail Restricted Delivery \$ <input type="checkbox"/> Adult Signature Required \$ <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Joseph F & Janice E Sturbois 7714 Charlotte Drive SW Huntsville, AL 35802</p> <p>PS Form 3800, A</p>

<p>7021 1970 0000 0778 6327</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Mary Ann Noble 11858 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6364</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Dennis D & Marilyn J Kilgore 4091 West State Road 28 Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6371</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Kendra D Kauffman 11979 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>
<p>7021 1970 0000 0778 6093</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Gerald & Lisa Van Matre 4555 W 1100 N Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6050</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To W. Leon Evert 11685 N 450 W Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6067</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Archie & Frances Hook 3324 Dr. Martin Luther King Jr. Anderson, IN 46013</p> <p>PS Form 3800, A</p>
<p>7021 1970 0000 0778 6074</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Pamela Elder 8644 Green Branch Lane Indianapolis, IN 46256</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6081</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Meredith Selby 5962 W 1000 N Frankton, IN 46044</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6098</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Dan Justus 14120 N 200 E Summitville, IN 46070</p> <p>PS Form 3800, A</p>
<p>7021 1970 0000 0778 6104</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Joe Lansford 11700 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6111</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Kenneth & Judith Anderson 11745 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6340</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To James Hickerson, April Waltemire 11622 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>
<p>7021 1970 0000 0778 6326</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Shirley J Hoel Trustee of Rev Liv Trust 11947 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6333</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Richard E & Kara L Brown 11543 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, A</p>	<p>7021 1970 0000 0778 6317</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery \$</p> <p>Postage \$ Total Postage and \$</p> <p>Sent To Christian & Beth Merrell 12271 N 500 W Alexandria, IN 46001</p> <p>PS Form 3800, A</p>

7021 1970 0000 0778 6005

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 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Joey Nabb**
11735 North 500 West
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0778 6032

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Leigh Humphries**
12039 North 500 West
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0778 6029

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Woodrow & Carolyn Ebert**
11394 N 550 W
Frankton, IN 46044

PS Form 3800, A

7021 1970 0000 0785 5206

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 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Norbert & Janice Jackson**
4125 West State Road 28
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0785 5213

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **William Beeman**
4075 West State Road 28
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0785 5220

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Stephen M Neese**
11900 North 450 West
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0785 5237

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Jeffrey A & Carina M Sizelove**
4314 West 1150 North
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0778 6135

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Roland Frances L/E Harrison**
Sullivan Christina
10284 N. SR. 13
Elwood, IN 46036

PS Form 3800, A

7021 1970 0000 0778 6142

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Larry & Barbara White**
11705 N 450 W
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0778 6159

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Extra Services & Fees (check box, add fee as appropriate)
 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Jeremy & Mendy Neel**
12345 N 500 W
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0778 6166

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Douglas Ayres, Shion Christensen**
210 W. State Street
Pendleton, IN 46064

PS Form 3800, A

7021 1970 0000 0778 6173

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Cindy Pruitt**
10194 N 550 W
Frankton, IN 46044

PS Form 3800, A

7021 1970 0000 0778 5978

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Extra Services & Fees (check box, add fee as appropriate)
 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Robert & Beverly Mills**
5608 W 1100 N
Frankton, IN 46044

PS Form 3800, A

7021 1970 0000 0778 5992

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Extra Services & Fees (check box, add fee as appropriate)
 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Garry & Jan Roemke**
11213 N 200 E
Alexandria, IN 46001

PS Form 3800, A

7021 1970 0000 0778 6128

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 Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$
 Postage \$
 Total Postage and \$

Sent To: **Richard & Patricia Shrook**
11638 North 600 West
Alexandria, IN 46001

PS Form 3800, A

<p>7021 1970 0000 0778 6500</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Keith Kelch 12665 North 700 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6517</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To William Davis 11719 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6524</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To John, Gary Jimmie Gross 3075 W. SR 28 Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0778 6495</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Robert Vestal 10549 North 550 West Frankton, IN 46044</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6432</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To David G Cress 10150 North 600 West Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6180</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Earl & Marjorie Derry 11639 N 450 W Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0778 6449</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Mara-Rae Incorporated 4545 W 1000 N Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6456</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Joshua K Hiday 10872 North 400 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 6463</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Jerry & Marietta Smith 5244 W 1300 N Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0785 5145</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Alisha Shoaf 10860 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5152</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Eltzroth Properties, LLC P.O. Box 8721 Maumee, OH 43537</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 5718</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Shiloh Church c/o Gary Simmons 4753 W 1400 N Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>
<p>7021 1970 0000 0778 5732</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Garland & Sharon Antrim 8573 N 900 W Elwood, IN 46036</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0778 5725</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Co-Alliance Cooperative Inc. 5250 E. US 36, Building 1000 Avon, IN 46123</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>	<p>7021 1970 0000 0785 5244</p> <p>U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee \$ Extra Services & Fees (check box, add fee as appropriate) <input type="checkbox"/> Return Receipt (hardcopy) <input type="checkbox"/> Return Receipt (electronic) <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Adult Signature Required <input type="checkbox"/> Adult Signature Restricted Delivery</p> <p>Postage \$ Total Postage and Fees \$</p> <p>Sent To Travis M & Rachel K Reed 11716 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015 PSN 7503-02-000-9047 See Reverse for Instructions</p>

<p>7021 1470 0000 0785 5551</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Cole Realy, LLC 1620 South A Street Elwood, IN 46036</p> <p>PS Form 3800, April 2015</p>	<p>7021 1470 0000 0778 5701</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Lester Huston 6540 N. Black Canyon Hwy. Phoenix, AZ 85017</p> <p>PS Form 3800, April 2015</p>	<p>7021 1470 0000 0776 5744</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Deborah Hymes 11632 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015</p>
<p>7021 1470 0000 0778 5756</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Laura Ann Davis Rev Trust John, Jim & Sao Davis 5340 W. SR 28 Elwood, IN 46036</p> <p>PS Form 3800, April 2015</p>	<p>7021 1470 0000 0785 5558</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: James & Michelle Spoon 3696 W. SR 28 Alexandria, IN 46001</p> <p>PS Form 3800, April 2015</p>	<p>7021 1470 0000 0785 5299</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Barbara L Leisure 11334 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015</p>
<p>7021 1470 0000 0785 5534</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Darrell & Margaret Idlewie Rev. Liv. Tr. 1528 North M Street Elwood, IN 46036</p> <p>PS Form 3800, April 2015</p>	<p>7021 1470 0000 0778 5036</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Richard & Patricia Shrock 11644 N 450 W Alexandria, IN 46001</p> <p>PS Form 3800, April 2015</p>	<p>7021 1470 0000 0785 5582</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Mitchel Cain & Flo Ann Conner 11272 North 450 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015</p>
<p>7021 1470 0000 0785 5266</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Martha James 2725 Brooks Street Anderson, IN 46016</p> <p>PS Form 3800, April 2015</p>	<p>7021 1470 0000 0785 5275</p> <p>U.S. Postal Service® CERTIFIED MAIL® RECEIPT Domestic Mail Only</p> <p>For delivery information, visit our website at www.usps.com.</p> <p>OFFICIAL USE</p> <p>Certified Mail Fee: \$3.50</p> <p>Postmark Here</p> <p>Send To: Kimberly S Lott 12406 North 125 West Alexandria, IN 46001</p> <p>PS Form 3800, April 2015</p>	

Attachment SH-4 to Hinton Direct
Cause No. 45793- Page 17 of 22

Jolores S & John Wm Campbell
6178 West 1000 North
Elwood, IN 46036

John & Henrietta Campbell Rev Trust
6178 West 1000 North
Elwood, IN 46036

Brittany Farms, LLC
P.O. Box 83
Elwood, IN 46036

Mitzi Ann Wisler
9262 West 1100 South
Elwood, IN 46036

Derek M Glass
4556 West 1300 North
Alexandria, IN 46001

Joshua Harris
12759 N 500 W
Alexandria, IN 46001

John W Canfield
7445 North 600 West
Frankton, IN 46044

Tracey Sue Huggins
12791 North 450 West
Alexandria, IN 46001

John M Richwine & John W Richwine
7716 West 900 North
Elwood, IN 46036

Edward & Patricia Everling
12644 North 450 West
Alexandria, IN 46001

Sigler Farms, Inc.
6730 West State Road 128
Frankton, IN 46044

MGR Agricultural Holdings
3812 W 1000 N
Frankton, IN 46044

Robert Kelly
13013 N 300 W
Alexandria, IN 46001

Charles P & Tamara B Davis
12064 North 450 West
Alexandria, IN 46001

Zachary L Kendall
12489 North 450 West
Alexandria, IN 46001

Murry D Owen
12467 North 600 West
Elwood, IN 46036

Keith & Tricia Kelich
13131 North 400 West
Alexandria, IN 46001

Phillip R & Linda C Pratt
12552 North 400 West
Alexandria, IN 46001

Casey J Forrester
12321 North 350 West
Alexandria, IN 46001

Timothy & Bethany Keller
3764 West State Road 28
Alexandria, IN 46001

Seth D & Elizabeth G Jones
3566 West State Road 28
Alexandria, IN 46001

Paula R Mathews
P.O. Box 41
Mount Olivet, KY 41064

James Robert Stickler
3548 West State Road 28
Alexandria, IN 46001

Barry G Gardner
12134 North 350 West
Alexandria, IN 46001

Gary Robert & Kimberly Jo Snyder
3387 West State Road 28
Alexandria, IN 46001

Surbaugh & Sons, Inc.
11135 Beach Road
Sister Bay, WI 54234

Roy C & Leah Flowers
3920 West 1150 North
Alexandria, IN 46001

Darrell & Margaret Idlewine Rev. Liv. Tr.
1528 North M Street
Elwood, IN 46036

James & Elizabeth Judd
3550 West 1100 North
Alexandria, IN 46001

James & Michelle Spoon
3096 W. SR 28
Alexandria, IN 46001

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Norbert & Janice Jackson
4125 West State Road 28
Alexandria, IN 46001

Kylee Carr
4153 W. SR 28
Alexandria, IN 46001

Kendra D Kauffman
11979 North 400 West
Alexandria, IN 46001

William Beeman
4075 West State Road 28
Alexandria, IN 46001

Ronald Jr. & Rebecca Rathert
4181 West State Road 28
Alexandria, IN 46001

Dennis D & Marilyn J Kilgore
4091 West State Road 28
Alexandria, IN 46001

Stephen M Neese
11900 North 450 West
Alexandria, IN 46001

Joseph F & Janice E Sturbois
7714 Charlotte Drive SW
Huntsville, AL 35802

Mary Ann Noble
11858 North 450 West
Alexandria, IN 46001

Jeffrey A & Carina M Sizelove
4314 West 1150 North
Alexandria, IN 46001

Allissa Flick
11522 North 450 West
Alexandria, IN 46001

James Hickerson, April Waltermire
11622 North 450 West
Alexandria, IN 46001

Travis M & Rachel K Reed
11716 North 450 West
Alexandria, IN 46001

Mattie Lucille Tarter
11568 North 450 West
Alexandria, IN 46001

Richard E & Kara L Brown
11543 North 400 West
Alexandria, IN 46001

Cole Realty, LLC
1620 South A Street
Elwood, IN 46036

James Huffman
4573 N. SR 28
Alexandria, IN 46001

Shirley J Hoel Trustee of Rev Liv Trust
11947 North 450 West
Alexandria, IN 46001

Martha James
2725 Brown Street
Anderson, IN 46016

Virgil L & Kaye D Canfield
7445 North 600 West
Frankton, IN 46044

Christian & Beth Merrell
12271 N 500 W
Alexandria, IN 46001

Kimberly S Lott
12406 North 125 West
Alexandria, IN 46001

Rex, Dianna & Dan Etchison
5207 West 1100 North
Frankton, IN 46044

Edward C & Cynthia Rose Hamilton
11575 North 450 West
Alexandria, IN 46001

Mitchel Cain & Flo Ann Conner
11272 North 450 West
Alexandria, IN 46001

Robert, Linda & Mitchell Cain
11233 North 450 West
Alexandria, IN 46001

Michael Jr & April Schinlaub
11405 North 400 West
Alexandria, IN 46001

Barbara L Leisure
11334 North 450 West
Alexandria, IN 46001

T&E Heath Farms, Inc.
10335 North 500 West
Frankton, IN 46044

Timothy D & Rachel L Friend
11450 North 400 West
Alexandria, IN 46001

Richard & Shelly Leisure
11370 North 450 West
Alexandria, IN 46001

Larry M & Frances C Mudd
4272 West 1100 North
Alexandria, IN 46001

Charles Wendell Bond &
Michael Ray Bond J/T R/S
10728 North 24th Street
Elwood, IN 46036

Floyd & Ruby Closser
8643 N 150 E
Alexandria IN 46001

Donald J & Theresa M Hall
10909 North 500 West
Frankton, IN 46044

AEP Indiana Michigan Transmission
Company, Inc.
P.O. Box 16428
Columbus, OH 43216

Cory J & Janelle M Bohlander
13771 North 500 West
Elwood, IN 46036

Lawrence A & Delores A Leeman
10514 North 600 West
Elwood, IN 46036

Gene P & Pamela J Elliott
10554 North 600 West
Elwood, IN 46036

Welborn Cemetery
c/o Pat Hoose Pipecreek Twp Trustee
208 South Anderson Street
Elwood, IN 46036

Robert Vestal
10549 North 550 West
Frankton, IN 46044

Cindy S Pruitt
10194 North 550 West
Frankton, IN 46044

William J & Paula S Auler
10112 North 600 West
Elwood, IN 46036

David G Cress
10150 North 600 West
Elwood, IN 46036

Zachary E & Kyrsten A Wood
10186 North 600 West
Elwood, IN 46036

Tony A New
5836 West 1000 North
Frankton, IN 46044

Earl & Marjorie Derry
11639 N 450 W
Alexandria, IN 46001

Kenneth J Bemis
10074 North 600 West
Elwood, IN 46036

Kimberly Anderson
11719 N 450 W
Alexandria, IN 46001

Jeffery L & Donna R Sizelove
5388 West 1000 North
Frankton, IN 46066

Steven & Beth LaShure
11261 N 500 W
Alexandria, IN 46001

Alisha Shoaf
10860 North 450 West
Alexandria, IN 46001

Melvin K & Darlene Wittkamper
10914 North 450 West
Alexandria, IN 46001

Curtis L & Rebecca Harrison
10672 North 450 West
Alexandria, IN 46001

Eltzroth Properties, LLC
P.O. Box 8721
Maumee, OH 43537

Jeffery A Forrer
10590 North 450 West
Alexandria, IN 46001

Candyce Elaine Dickey
10643 North 400 West
Alexandria, IN 46001

William & Sharon Reddick
5287 W 600 N
Frankton, IN 46044

Thomas Joe & Charlene F Heath
10335 North 500 West
Frankton, IN 46044

Ross E & Katrina S Hunter
10040 North 500 West
Frankton, IN 46044

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Mara-Rae Incorporated
4545 W 1000 N
Alexandria, IN 46001

David L & Debbie M Mumbower
10750 North 400 West
Alexandria, IN 46001

Rauleigh Jay Ringer &
Kary Joe Wilson J/T R/S
P.O. Box 176
Orestes, IN 46063

Joshua K Hiday
10872 North 400 West
Alexandria, IN 46001

William E & Laura B & Dean A Fisher
10952 North 400 West
Alexandria, IN 46001

Red Gold, Inc.
P.O. Box 83
Elwood, IN 46036

Jerry & Marietta Smith
5244 W 1300 N
Elwood, IN 46036

Lee & Tasha Walls
4955 West 1000 North
Frankton, IN 46044

H Larry & Carolyn J Welborn
6903 West Division Line Road
Delphi, IN 46023

Kevin A Fix
5369 West 1000 North
Frankton, IN 46044

Terry Lee & Jennie Joe Crull
5747 West 1000 North
Frankton, IN 46044

Patrick Dayton
5034 West State Road 28
Alexandria, IN 46001

Mary Hobbs
12848 North 350 West
Alexandria, IN 46001

Garland & Sharon Antrim
8573 North 900 West
Elwood, IN 46036

Nicholas & Emily LaShure
12919 N 400 W
Alexandria, IN 46001

David & Jane Burton
11637 North 500 West
Alexandria, IN 46001

Terry & Teresa Hartman
509 North 13th Street
Elwood, IN 46036

Colt Reichart
10606 North 400 West
Alexandria, IN 46001

Keith Kelich
12665 North 700 West
Elwood, IN 46036

Joshua & Danielle Johnson
10605 North 550 West
Frankton, IN 46044

Donald Wirick, Darrell Stonebarger
11647 N 450 W
Alexandria, IN 46001

William Davis
11719 North 450 West
Alexandria, IN 46001

Mark & Dena Hosier
12344 N 300 W
Alexandria, IN 46001

Jim & Patricia Humphries
12081 North 500 West
Alexandria, IN 46001

John, Gary Jimmie Gross
3075 W. SR 28
Alexandria, IN 46001

Larry & Dottie Lawrence
11863 North 400 West
Alexandria, IN 46001

Kay, John, Virgil Canfield
7445 North 600 West
Frankton, IN 46044

Jeff Sizelove
4346 West 1150 North
Alexandria, IN 46001

Allissa Flick
11522 N 450 W
Alexandria, IN 46001

Millstream Farm Inc.
5608 West 1100 North
Frankton, IN 46044

Richard & Patricia Shrock
11638 North 600 West
Alexandria, IN 46001

Leigh Humphries
12039 North 500 West
Alexandria, IN 46001

Laura Ann Davis Rev Trust
John, Jim & Sue Davis
5340 W. SR 28
Elwood, IN 46036

Kenneth & Judith Anderson
11745 North 450 West
Alexandria, IN 46001

Joey Nabb
11735 North 500 West
Alexandria, IN 46001

Deborah Hymes
11652 North 450 West
Alexandria, IN 46001

Joe Lansford
11700 North 450 West
Alexandria, IN 46001

Garry & Jan Roemke
11213 N 200 E
Alexandria, IN 46001

Garland & Sharon Antrim
8573 N 900 W
Elwood, IN 46036

Dan Justus
14120 N 200 E
Summitville, IN 46070

Robert & Beverly Mills
5608 W 1100 N
Frankton, IN 46044

Co-Alliance Cooperative Inc.
5250 E. US 36, Building 1000
Avon, IN 46123

Meredith Selby
5962 W 1000 N
Frankton, IN 46044

Cindy Pruitt
10194 N 550 W
Frankton, IN 46044

Shiloh Church c/o Gary Simmons
4753 W 1400 N
Elwood, IN 46036

Pamela Elder
8644 Green Branch Lane
Indianapolis, IN 46256

Douglas Ayres, Shion Christensen
210 W. State Street
Pendleton, IN 46064

Lester Huston
6540 N. Black Canyon Hwy.
Phoenix, AZ 85017

Archie & Frances Hook
3324 Dr. Martin Luther King Jr.
Anderson, IN 46013

Jeremy & Mendy Neel
12345 N 500 W
Alexandria, IN 46001

Richard & Patricia Shrock
11644 N 450 W
Alexandria, IN 46001

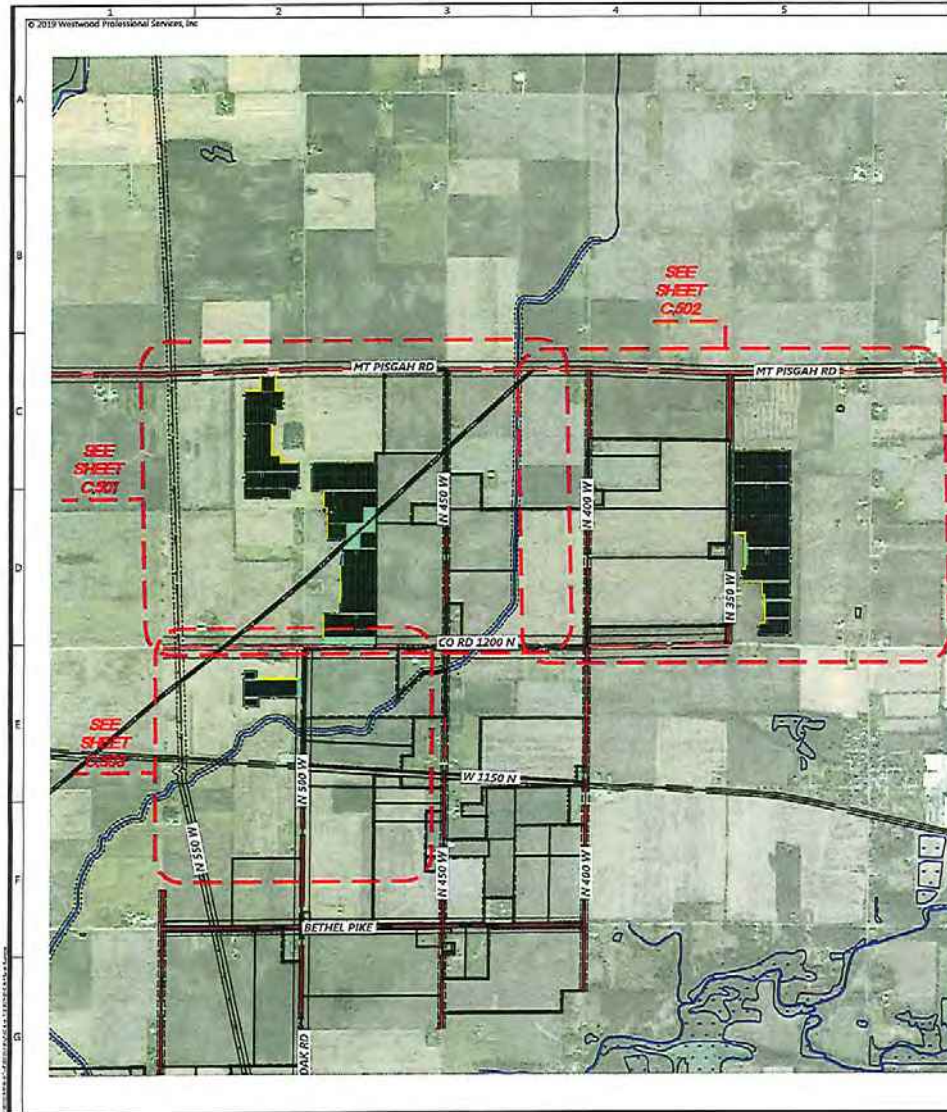
W. Leon Evert
11685 N 450 W
Alexandria, IN 46001

Larry & Barbara White
11705 N 450 W
Alexandria, IN 46001

Woodrow & Carolyn Ebert
11394 N 550 W
Frankton, IN 46044

Gerald & Lisa Van Matre
4555 W 1100 N
Alexandria, IN 46001

Roland Frances L/E Harrison
Sullivan Christina
10284 N. SR 13
Elwood, IN 46036



BUFFER PLANTING SCHEDULE

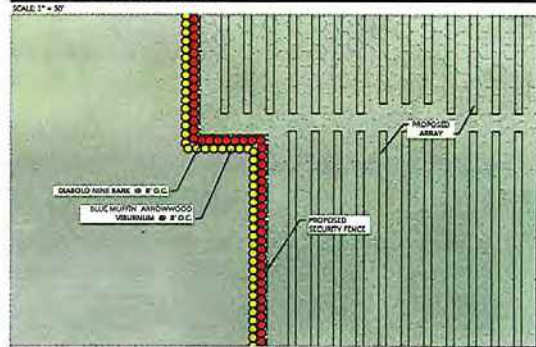
KEY	APPROX. QTY	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
●●●	114	Blue Muffin Amuraoled Viburnum / Viburnum Opulifolium 'Crabtree'	48" EXH	6'-0" O.C.	12'
●●●	100	Drabola Ninebark / Physocarpus opulifolius 'Dabola'	48" EXH	6'-0" O.C.	8-10'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

BUFFER PLANTING MATERIALS



TYPICAL PLANTING DETAIL



LEGEND

- PROJECT BOUNDARY
- LOT LINE
- ADJACENT PARCEL LINE
- RIGHT-OF-WAY LINES
- EASEMENT LINES
- DL PAVED ROAD
- DL OVERHEAD POWER
- DL WETLAND
- DL STREAM
- PROPOSED SOLAR ARRAY
- PROPOSED ELECTRICAL EQUIPMENT
- PROPOSED SECURITY FENCE
- PROPOSED UNDERGROUND C&G LINE
- PROPOSED SCREENING
- NATIVE LOW GROWTH GRASS MAT

Westwood

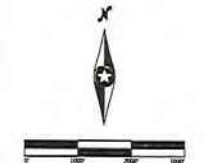
3800 E. 116th Ave., Suite 200
Indianapolis, IN 46241
www.westwoodinc.com

PREPARED FOR:

Invenergy

One South Wacker Drive, Suite 1800
Chicago, IL 60606

PROJECT NO. _____
DATE: _____
DRAWN BY: _____
CHECKED BY: _____
APPROVED BY: _____



Lone Oak Solar 2
Madison County, Indiana

Overall Landscaping
Site Plan

NOT FOR CONSTRUCTION

DATE: 07/02/2019
SHEET: L.200

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:49 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] No to solar farm!

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Mary <mary_kelich@hotmail.com>
Date: June 26, 2022 at 9:08:22 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] No to solar farm!

Hello,

I have many concerns about the Lone Oak Solar Farm. I am very concerned for my neighbors who will have these panels surrounding their homes and what it will do to their property values. I come from a family farm and would like to continue the family tradition, not only does this solar farm take away land to grow food its also going to make it harder for someone like myself to compete with landowners who have more money to rent and buy ground away from me. I am concerned for the environment, the research that I have done there is more harm then good that will come from these panels. I have also read where birds of prey, can mistake the panels from up above as water. I see bald eagles frequently and there is nest right by Orestes, we need to protect these birds they are finally making a comeback on their numbers. My final concern is the CORRUPT government officials that allowed this project to even come into our county. With all the illegal business that went on, there is no reason we are still fighting this solar project! When I talk to fellow community members, no one wants these panels in their backyard!! Please vote NO on this petition and follow what the majority wants, that is what living in American is all about.

Thank you,

Mary Munson
Frankton, IN

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:49 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Lone Oak Solar extension

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: jwcanfield@frontier.com
Date: June 24, 2022 at 10:04:21 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: Re: [EXTERNAL] Lone Oak Solar extension

Share with the BZA board.

On Thursday, June 23, 2022, 10:48:22 PM EDT, Rachel Christenson <rchristenson@madisoncounty.in.gov> wrote:

John,

If we share this with the BZA, it becomes part of the public record, meaning Invenergy will see it. Would you still like us to share this email with the BZA when they are considering the petition?

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

On Jun 23, 2022, at 10:31 PM, jwcanfield@frontier.com wrote:

This is John Canfield. I am asking the BZA to not extend the Lone Oak Solar deadline another 2 years. My parents, Virgil and Keye Canfield, were manipulated into allowing power cables through their field in order to protect their tile outlet. They did not want to be part of this project, but a situation out of their control put them in this project. I would like this email shared with the BZA board, but not with Invenergy or anyone associated with Invenergy.

Thanks John Canfield

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:49 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Vote NO on petition 2019-SU-005

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: "Munson, Mary" <mmunson@sompo-intl.com>
Date: June 24, 2022 at 10:07:53 AM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Vote NO on petition 2019-SU-005

Hello,

I have many concerns about the Lone Oak Solar Farm. I am very concerned for my neighbors who will have these panels surrounding their homes and what it will do to their property values. I come from a family farm and would like to continue the family tradition, not only does this solar farm take away land to grow food its also going to make it harder for someone like myself to compete with landowners who have more money to rent and buy ground away from me. I am concerned for the environment, the research that I have done there is more harm then good that will come from these panels. I have also read where birds of prey, can mistake the panels from up above as water. I see bald eagles frequently and there is nest right by Orestes, we need to protect these birds they are finally making a comeback on their numbers. My final concern is the CORRUPT government officials that allowed this project to even come into our county. With all the illegal business that went on, there is no reason we are still fighting this solar project! When I talk to fellow community members, no one wants these panels in their backyard!! Please vote NO on this petition and follow what the majority wants, that is what living in American is all about.

Thank you,

Mary Munson
Frankton, IN

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager. This message contains confidential information and is intended only for the

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:49 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Solar panels

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: rjcompton72@frontier.com
Date: June 23, 2022 at 6:21:08 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Solar panels
Reply-To: "rjcompton72@frontier.com" <rjcompton72@frontier.com>

Please vote NO on 2019-SU-005. Please hear us and know that we are not dumb as to what some people are trying pull on the residents of Madison County. Thank you.

[Sent from Frontier Yahoo Mail on Android](#)

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:49 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Solar power bill

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Mike Thomas <five9deuce@gmail.com>
Date: June 23, 2022 at 5:58:08 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Solar power bill

Please vote NO on this it.

Mike Thomas
Alexandria IN

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:49 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Solar farm

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Teresa Yates <tyates@acsc.net>
Date: June 23, 2022 at 4:50:31 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Solar farm

Please vote NO to 2019-56-005

Sent from my iPad

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Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:50 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Solar farms

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Nancy Mcdonald <znurz@aol.com>
Date: June 23, 2022 at 4:45:56 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Solar farms

Please vote no on petition 2019-SU-005
Thank you.
Nancy McDonald

Sent from my iPhone

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:50 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Tuesdays meeting

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Jean Mills <millsjean5@gmail.com>
Date: June 23, 2022 at 4:45:33 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Tuesdays meeting

Please make the ethical choice to vote no for Petition 2019-SU-005.
I'm sure that you are familiar with the entire workings of this project and that you are aware of the many ways the company has not been forthright. Also, the signs announcing the meeting have been placed in the least traveled traffic areas. If there are not enough signs at least place them where the majority of the taxpayers will see them.

Sincerely,
Taxpayer, voter and concerned citizen,
Jean Mills

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:50 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Solar farm

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Teresa Yates <tyates@acsc.net>
Date: June 23, 2022 at 4:39:08 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Solar farm

Please vote NO to solar farms . Thank you in advance

Sent from my iPad

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Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:50 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Notice of public hearing

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Robert Mills <millstream50@gmail.com>
Date: June 23, 2022 at 4:38:03 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Notice of public hearing

Please do the right thing by voting no on petition 2019-SU-005.

If you have done your homework then you know this entire project has not followed the law and has not represented the majority of Madison county voters and taxpayers.

The signs for the meeting have not been placed in the areas where they will be seen by the majority. The excuse that there are not enough signs is not valid. At least move the signs so all affected areas are covered for at least a few days.

A concerned citizen, voter, taxpayer,
Bob Mills

Stacey Hinton

From: Rachel Christenson
Sent: Monday, June 27, 2022 9:50 AM
To: Stacey Hinton
Subject: Fwd: [EXTERNAL] Solar panels

Rachel Christenson, AICP
Interim Planning Director
Madison County Plan Commission
317-519-8510

Sent from my iPhone

Begin forwarded message:

From: Lynn Thornburg <lynntustinthornburg@gmail.com>
Date: June 23, 2022 at 4:37:19 PM EDT
To: Rachel Christenson <rchristenson@madisoncounty.in.gov>
Subject: [EXTERNAL] Solar panels

Please vote no on bill 2019-SU-005
Thank you

Sent from my iPhone

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**IN THE MATTER OF THE COMPLAINT OF LONE)
OAK SOLAR ENERGY LLC AGAINST THE)
BOARD OF COMMISSIONERS AND BOARD OF)
ZONING APPEALS OF MADISON COUNTY,)
INDIANA FOR A DETERMINATION UNDER)
INDIANA CODE §§ 8-1-2-54 THROUGH -67,)
8-1-2-101, 8-1-2-115, AND RELATED STATUTES)
REGARDING THE UNREASONABLENESS OF THE)
DECISION OF THE BOARD OF ZONING APPEALS)
UNDER THE COUNTY’S SOLAR ENERGY)
ZONING ORDINANCE)
)
**RESPONDENTS: MADISON COUNTY BOARD OF)
ZONING APPEALS AND MADISON COUNTY)
BOARD OF COMMISSIONERS)****


CAUSE NO. 45793

LONE OAK SOLAR ENERGY LLC’S NOTICE OF ADDITIONAL AUTHORITY

Lone Oak Solar Energy LLC (“Lone Oak” or “Complainant”), by counsel, hereby submits this Notice of Additional Authority to support its Response to Respondent Madison County, Indiana’s Motion to Dismiss. The Indiana Court of Appeals’ decision in *Duke Energy Indiana, LLC v. City of Noblesville, Indiana* (Ind. Ct. App. Case No. 21A-PL-1563) dated December 8, 2022 is attached as Exhibit A.

Dated this 12th day of December, 2022.

Respectfully submitted,



Kristina Kern Wheeler, #20947-49A
Nikki Gray Shoultz, #16509-41
Bose McKinney & Evans LLP


CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was delivered electronically or by certified U.S. mail this 12th day of December, 2022 to the following:

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115 W. Washington Street
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Graham, Farrer & Wilson, PC
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Elwood, Indiana 46036
jgraham@gfwlawyers.com



Kristina Kern Wheeler
BOSE MCKINNEY & EVANS LLP

Exhibit A



ATTORNEYS FOR APPELLANT

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Indianapolis, Indiana

Karen Arland
Kennedy Downs & Arland, PC
Carmel, Indiana

IN THE
COURT OF APPEALS OF INDIANA

Duke Energy Indiana, LLC,
Appellant-Defendant / Counterclaimant,

v.

City of Noblesville, Indiana,
Appellee-Plaintiff / Counter-Defendant.

December 8, 2022

Court of Appeals Case No.
21A-PL-1563

Appeal from the Hamilton
Superior Court

The Honorable Michael A.
Casati, Judge

Trial Court Cause No.
29D01-2009-PL-6389

Weissmann, Judge.

- [1] Duke Energy Indiana LLC lost its battle with the City of Noblesville concerning whether Duke must follow Noblesville’s Unified Development Ordinances (UDO) in two unrelated building projects on separate parcels of land owned by Duke. The “Substation Project” required Duke to demolish a residential home and garage in order to build a new utility substation. The “Garage/Office Project” involved construction of a seven-bay heavy equipment storage garage with attached offices.
- [2] Finding Duke must follow Noblesville’s ordinances, the trial court then imposed more than \$500,000 in penalties, attorney fees, and interests arising from Duke’s intentional decision to raze the residential home and garage without first obtaining a demolition permit.
- [3] On appeal, Duke claims it is not subject to local ordinances unless the Indiana Utility Regulatory Commission (IURC) says it is. Duke argues that if Noblesville wished to challenge Duke’s non-compliance, Noblesville needed to

file a complaint with the IURC, rather than the trial court. We reject Duke's view that this matter needed to be litigated before the IURC. We also reject the view that the IURC's authority over utility matters is virtually unlimited and affirm the trial court's judgment in all respects. However, we remand the case for further proceedings concerning the amount, if any, of appellate fees owed by Duke to Noblesville under the UDO.

Facts¹

[4] Duke informed Noblesville in June 2020 of its plans to demolish an existing home and garage to build a transmission substation. Noblesville requested that Duke consider other sites, but Duke ultimately determined it would proceed with its plans. Noblesville insisted that Duke comply with the city's Unified Development Ordinances (UDO) in demolishing the house and garage.² The UDO contains developmental restrictions relating to, among other things, zoning, architecture, landscaping, environmental standards, setbacks, demolition, building codes, and signs.

[5] Duke refused to submit to the UDO's demolition permit process and began demolishing the home and garage without the necessary permit. Noblesville issued a stop order, demanding that Duke cease its demolition work. The next

¹ We conducted oral argument in this case on October 11, 2022. We thank counsel for their able presentations. We also thank the Indiana Energy Association, Accelerate Indiana Municipalities, and the Indiana Municipal Lawyers Association for their submissions as amici curiae.

² Noblesville does not seek Duke's compliance with the UDO when constructing the transmission substation.

day Duke advised Noblesville that it would not seek building or location permits for this project. Duke also informed Noblesville of a second planned project to build a seven-bay heavy equipment storage garage with attached offices.

- [6] Noblesville immediately filed a *Verified Complaint to Enforce Ordinance and for Declaratory and Injunctive Relief* (the Complaint) in the Hamilton Superior Court.³ Noblesville asked the court to require Duke to obtain a UDO demolition permit before continuing the demolition for the Substation Project. It also asked the court to require Duke to obtain location improvement and building permits for the Garage/Office Project and for any “non-substation improvements” for the Substation Project. App. Vol. II, pp. 48-50, 52-54. Noblesville also sought attorney fees, costs, and penalties for Duke’s ongoing failure to obtain the demolition permit.
- [7] Duke counterclaimed, also seeking declaratory and injunctive relief. It requested the trial court rule that Noblesville “lacks jurisdiction and authority to seek to regulate the activities of [Duke]” on both of the two projects. *Id.* at 95.

³ In its Complaint, Noblesville alleged that Duke first informed Noblesville that Duke would build a transmission substation on the Substation Project property, but that Duke later reported that it would build the garage/office building there. App. Vol. II, pp. 47-49, ¶¶ 1, 5, 16. In its answer/counterclaim, Duke denied that the garage office building would be built on the Substation Project property. *Id.* at 82. Instead, the garage/office building would be built on the Garage/Office Project property, according to Duke, and a substation would be built on the Substation Project property. *Id.* at 82, 91-92. Duke repeated those allegations in its summary judgment filings. *Id.* at 123-125, 142; App. Vol. III, pp. 5, 15-16; App. Vol. IV, p. 196. The trial court ultimately found that Duke intended to build the garage/office building on the Garage/Office Project property. App. Vol. II, p. 12.

Duke also sought an injunction barring Noblesville from imposing local building ordinances and regulations on Duke as it develops the two sites.

[8] The parties agreed to a special judge, who assumed jurisdiction. Both parties then moved for summary judgment. After a hearing, the trial court granted Noblesville’s motion for summary judgment and denied Duke’s. In its detailed findings of fact and conclusions of law, the court found it had jurisdiction over Duke’s claim.

[9] The court ordered Duke to comply with Art. 4, Part F, Section 4 of the UDO by obtaining a demolition permit for the Substation Project. As to the Garage/Office Project, the court ordered Duke to comply with the UDO by obtaining an improvement location permit under Art. 4, Part F, Section 1, and a building permit under Art. 4, Part F, Section 2, before beginning construction. The court also imposed a penalty of \$150,000 for Duke’s failure to obtain a demolition permit before razing the home and garage on the substation site. After a later hearing, the court also awarded to Noblesville attorney fees, costs, expenses, and expert fees totaling \$115,679.10. Duke appeals.⁴

⁴ Noblesville moved to strike portions of Duke's brief, and our motions panel referred Noblesville’s motion to this panel for decision. Noblesville alleges that Duke improperly inserts argument in its statement of the facts. Noblesville also argues that Duke supports some of its assertions in its statement of facts with citations to the argument section of Duke's summary judgment briefs.

Duke contends it merely provided the historical context for this case in its statement of facts and, in so doing, followed instructions given at an Appellate Judges Education Institute program on “storytelling” for advocates and judges. We remind counsel that all portions of briefs filed in the Indiana appellate courts still must track our appellate rules. Indiana Appellate Rule 46 and our precedent make clear that argument may not be inserted in the statement of facts and that supportive citations to authority or to the record are

Discussion and Decision

[10] Duke raises two primary arguments. First, it claims that the trial court erred in enforcing the UDO against Duke because only the IURC can enforce such local ordinances against Duke. Second, Duke contends the trial court erroneously ordered Duke to pay the penalties and Noblesville's defense costs.

[11] We conclude that Duke's demolition work at the substation site and construction work at the garage/office site do not fall within the IURC's exclusive statutory purview. We also conclude that the trial court did not abuse its discretion in imposing the penalties and defense costs.

I. General Standard of Review

[12] As this is an appeal from summary judgment, the standard applicable in the trial court also governs on appeal. *Harradon v. Schlamadinger*, 913 N.E.2d 297, 300 (Ind. Ct. App. 2009); Ind. Trial Rule 56(C). Considering only the designated evidence, this Court will affirm summary judgment when no genuine issue of material fact exists and the moving party is entitled to summary judgment as a matter of law. *Harradon*, 913 N.E.2d at 300.

required. *See, e.g., In re Garrard*, 985 N.E.2d 1097, 1104 (Ind. Ct. App. 2003) (finding appellant waived his appeal by, among other things, failing to provide citations to the record for factual assertions and including argument in his statement of the facts). A party's citations to its own argument in the trial court establishes only the existence of that argument in the trial court and not the accuracy of the factual assertions within that argument. We therefore grant Noblesville's motion to strike in part. We consider any argument in Duke's statement of facts as argument, even if disguised as facts. We do not consider Duke's factual assertions that lack sufficient citations either to the authority or to the record.

[13] The parties agree that whether the IURC or the trial court is the proper adjudicator of these claims turns on statutory interpretation and thus is a question of law for this Court. *See Duke Energy Ind., LLC v. Town of Avon*, 82 N.E.3d 319, 324 (Ind. Ct. App. 2017).⁵

II. Trial Court’s Authority to Enforce UDO

[14] As to the issue of the trial court’s authority to enforce the UDO against Duke, the parties agree that one issue is dispositive: whether Duke’s demolition of the home for the Substation Project or the construction in the Garage/Office Project involves utility “service” or the location and use of a utility “facility.” If so, the parties agree that the applicable statutes and our precedent dictate that the IURC has control over this dispute.

[15] We conclude that Duke’s demolition of the existing home and garage and its construction of the combined garage/office building involved neither utility “service” nor the location and use of a utility “facility.” Those projects therefore do not fall within the IURC’s exclusive domain, leaving the trial court with

⁵ When all issues presented in a complaint fall within the exclusive jurisdiction of the relevant administrative or regulatory agency, the trial court lacks subject matter jurisdiction over the complaint. *Town of Avon*, 82 N.E.3d at 324. Duke views the trial court as having subject matter jurisdiction over Noblesville’s complaint and Duke’s counterclaim. *See generally* Ind. Code § 34-14-1-1 *et seq.* (Declaratory Judgment Act granting trial court power to determine rights, status, and other legal relations of the parties as to the named parties); Ind. Code § 36-1-6-4 (granting trial court jurisdiction over Noblesville’s civil action for ordinance violation). Duke seems to contend only that the trial court lacked authority to grant the relief Noblesville sought: that is, enforcement of any local ordinances against Duke. That power, according to Duke, belongs exclusively to the IURC. Our ultimate decision that the trial court has such enforcement authority negates any issue of subject matter jurisdiction, so we do not address Duke’s contentions on that issue.

authority to resolve this dispute and enforce the UDO against Duke in the limited manner ordered.

A. Scope of the IURC's Authority

[16] The overriding theme of Duke's argument is that the Indiana General Assembly has granted the IURC virtually unlimited exclusive jurisdiction over disputes involving public utilities.⁶ But the IURC's jurisdiction over public utility matters is not as broad as Duke alleges. The General Assembly created the IURC mainly as a fact-finding body with the technical expertise to administer the regulatory scheme devised by the legislature. *United Rural Elec. Membership Cor. v. Ind. & Mich. Elec. Co.*, 549 N.E.2d 1019, 1021 (Ind. 1990). The IURC's task is to ensure that public utilities provide constant, reliable, and efficient service to Indiana citizens. *Ind. Bell Tel. Co. v. Ind. Util. Regul. Comm'n*, 715 N.E.2d 351, 354 n.3 (Ind. 1999), *citing Office of Util. Consumer Couns. v. Pub. Serv. Co. of Ind., Inc.*, 463 N.E.2d 499, 503 (Ind. Ct. App. 1984).

[17] Any number of public utility matters do not require the IURC's expertise to resolve. For instance, no one reasonably would challenge a municipality's authority to enforce speeding ordinances against public utility employees

⁶ When Duke's counsel was asked at oral argument to specify a Duke activity over which the IURC would *not* have control, Duke's counsel offered only one specific example: when Duke operates as a commercial vendor providing electricity to private parties, rather than as a utility providing service to Indiana residents. However, Duke's counsel suggested the IURC would govern all of Duke's activities except those specifically exempted by statute and that those unspecified statutory exceptions would encompass more than just Duke's actions as a commercial vendor.

driving utility trucks even if the employees were providing utility service at the time. And Duke's own actions diverge from its claims of virtually unchecked IURC control. Since 2010, Duke has applied for and obtained from Noblesville several permits, including at least one improvement location permit, for work at the Substation Project property. App. Vol. VI, p. 116.

[18] Accordingly, we reject Duke's claim that the IURC has sole authority over this ordinance dispute simply because the IURC allegedly has authority over virtually every utility dispute.

B. IURC Versus Municipal Authority

[19] As the IURC's authority over disagreements involving public utilities is not absolute, we must determine whether the ordinance dispute between Duke and Noblesville falls within the IURC's purview.

[20] For more than a century, the IURC has controlled the manner in which utilities operate. *See City of Huntington, et al., v. N. Ind. Power Co.*, 5 N.E.2d 889, 892 (Ind. 1937). "The [IURC's] assignment is to ensure that public utilities provide constant, reliable, and efficient service to the citizens of Indiana." *IPL Indus. Grp. v. Indianapolis Power & Light Co.*, 159 N.E.3d 617, 622 (Ind. Ct. App. 2020). But the IURC can only exercise power granted to it by statute. *United Rural Elec. Membership Corp.*, 549 N.E.2d at 1021. "Any doubts about the [IURC's] statutory authority must be resolved against the existence of such authority." *NIPSCO Indus. Grp. v. N. Ind. Pub. Serv. Co.*, 31 N.E.3d 1, 5 (Ind. Ct. App. 2015).

[21] Until 1980, municipalities had similar limitations on their authority, possessing only those powers expressly authorized by statute. *City of Gary v. Ind. Bell Tel. Co.*, 732 N.E.2d 149, 153 (Ind. 2000). The Home Rule Act, enacted by the General Assembly in 1980, changed that traditional rule. *Id.*; Ind. Code § 36-1-3-4(a). A municipality now has “(1) all powers granted it by statute; and (2) all other powers necessary or desirable in the conduct of its affairs, even though not granted by statute.” Ind. Code § 36-1-3-4(b). With limited exception not applicable here, a municipality “may exercise any power it has to the extent that the power: (1) is not expressly denied by the Indiana Constitution or by statute; and (2) is not expressly granted to another entity.” Ind. Code § 36-1-3-5(a).

[22] The General Assembly has granted municipalities the power to “regulate conduct, or use or possession of property, that might endanger the public health, safety, or welfare.” Ind. Code § 36-8-2-4. A municipality also has the power to enforce its ordinances. Ind. Code § 36-1-4-11. Accordingly, Noblesville has authority to enforce its UDO against Duke unless the General Assembly has “expressly granted” that authority to the IURC. *See id.*; Ind. Code § 36-1-3-4(b), -5(a); *United Rural Elec. Membership Corp.*, 549 N.E.2d at 1021. To resolve this dispute, we essentially must draw the line between Home Rule authority and IURC control. We are guided in this analysis by a trio of statutes.

i. IURC Statutes Relating to Ordinance Enforcement

[23] We first turn to Indiana Code § 8-1-2-115. This statute specifies that the IURC “shall inquire into any . . . violation of the . . . ordinances of any city or town by any public utility doing business therein . . . and shall have the power, and it shall be its duty, to enforce this chapter, as well as other laws, relating to public utilities.”⁷

[24] The second statute is Indiana Code § 8-1-2-54, which tasks the IURC with investigating, “as it may deem necessary or convenient,” specific types of complaints made by a “municipal organization” against any public utility. Included as a type of complaint are those alleging “that any regulation, measurement, practice or act whatsoever *affecting or relating to the service of any public utility*, or any service in connection therewith, is in any respect unreasonable, unsafe, insufficient or unjustly discriminatory.” Ind. Code § 8-1-2-54 (emphasis added).

[25] After the IURC conducts an investigation under Indiana Code § 8-1-2-54, the third statute comes into play—Indiana Code § 8-1-2-69. This statute requires the IURC to

determine and declare and by order fix just and reasonable measurements, regulations, acts, practices, or service to be

⁷ Noblesville claims that Duke has waived any reliance on Indiana Code § 8-1-2-115 by failing to raise it in the trial court. But Duke cited the statute in its brief in support of its motion for summary judgment, arguing that it and other statutes granted the IURC exclusive authority over the ordinance dispute between Noblesville and Duke. Appellant’s App. Vol. II, pp. 135-36. We find no waiver.

furnished, imposed, observed, and followed in the future in lieu of those found to be unjust, unreasonable, unwholesome, unsanitary, unsafe, insufficient, preferential, unjustly discriminatory, inadequate, or otherwise in violation of this chapter, as the case may be, and shall make such other order respecting such measurement, regulation, act, practice, or service as shall be just and reasonable.

Ind. Code § 8-1-2-69.

[26] We have recognized that Indiana Code § 8-1-2-115 is part of a “uniform system” for evaluating and enforcing local ordinances. *Town of Avon*, 82 N.E.3d at 325 (referring to Indiana Code § 8-1-2-101(a) and -115). This system grants the IURC authority over disputes between a public utility and a municipality over enforcement of ordinances when “the location and use of utility facilities” is involved. *Darlage v. E. Bartholomew Water Corp.*, 379 N.E.2d 1018, 1021 (Ind. Ct. App. 1978) (ruling before enactment of Home Rule statutes that IURC has authority over ordinance violations arising from location and use of utility facilities because such regulations might infringe on utility service). Additionally, Indiana Code § 8-1-2-54 expressly grants the IURC authority over ordinance disputes between a public utility and a municipality when the ordinance affects or relates to the utility’s service.

[27] Given this express grant of authority, the parties agree, and we conclude, that Noblesville could not enforce its ordinances against Duke without IURC involvement if the dispute involves “the location and use of utility facilities.” *Howell v. Ind. Am. Water Co.*, 668 N.E.2d 1272, 1275 (Ind. Ct. App. 1996), *citing Darlage*, 379 N.E.2d at 1021. The parties also agree, and we conclude based on

Indiana Code § 8-1-2-54, that disputes that affect or relate to the utility’s “service” are within the IURC’s exclusive jurisdiction.

ii. “Location and Use of Utility Facilities”

[28] The parties disagree about the meaning of “location and use of utility facilities.” “Utility facility” is not defined in Indiana Code Chapter 8-1-2. Borrowing from Chapter 8-1-2.4, which addresses specialized energy production, Duke argues that “facility,” in this utility context, means “any land, system, building, or improvement that is located at the project site and is necessary or convenient to the construction, completion, or operation of the facility.” *See* Ind. Code § 8-1-2.4-2(b)(2), (c)(2), and (e)(2).

[29] The trial court rejected that definition, noting it is used only to describe “specialized types of energy facilities not at issue here.” App. Vol. II, p. 29. That definition appears in the Indiana Code only in one utility statute: Indiana Code § 8-1-2.4-2, which is not at issue here. And within Indiana Code § 8-1-2.4-2, the definition appears when describing “Alternative energy production facility,” “Cogeneration facility,” and “Small hydro facility,” none of which are involved here. Ind. Code § 8-1-2.4-2(b)(2), (c)(2), and (e)(2). The trial court concluded:

[I]n defining those facilities, the Indiana legislature distinguishes between the power-generating “facility” (see I.C. § 8-1-2.4-2(b)(1), (c)(1), and (e)(1)), and the “land, system, building, or improvement that is located at the project site” that is necessary or convenient for “construction, completion, or operation of the facility” (see I.C. § 8-1-2.4-2(b)(2), (c)(2), (e)(2)). The terms

“land, system, building, or improvement,” “project site,” and “facility” are distinct terms with different meanings. Throughout the Indiana Code, “facility” refers to the actual power-generating or transmitting source. [Duke] incorrectly suggests that “facility” means the “land, system, building, or improvement” on a “project site.” While that definition does extend to those specialized energy facilities in Section 8-1-2.4-2, it has not been extended to a residence, garage, and stand-alone parking garage and office building.

App. Vol. II, pp. 29-30. Based on its analysis, the trial court determined that neither the house and garage to be demolished in relation to the Substation Project nor the garage/office building planned for the Garage/Office Project were utility “facilities.” App. Vol. II, pp. 18, 30-31, 33.

[30] Duke contends the trial court incorrectly interpreted “facility” to mean only generation facilities or transmission lines because that definition is too restrictive and inconsistent with precedent. Duke notes that a “utility” means “every plant or equipment within the state used for . . . the production, transmission, delivery, or furnishing of heat, light, water, or power, either directly or indirectly to the public.” Ind. Code § 8-1-2-1(g)(2).

[31] Duke essentially argues that the demolition for the Substation Project necessarily involves the location and use of a utility facility because the demolition is the first stage in building a transmission substation there. Duke also contends the dispute over construction of the buildings related to the Garage/Office Project also involves the location and use of a utility facility

because that structure will be used to improve Duke’s response to necessary utility maintenance and repairs throughout the region.

[32] In response, Noblesville argues that a “utility facility” means “a structure specific and unique to a utility.” Appellee’s Brief, p. 26. Such an interpretation, according to Noblesville, follows precedent and statutes describing utility facilities. *See U.S. Gypsum, Inc. v. Ind. Gas Co.*, 735 N.E.2d 790, 802 (Ind. 2000) (“Where statutes address the same subject, they are in *pari materia*, and we harmonize them if possible.”); *see also* Ind. Code §§ 8-10-1-8, -15-2-6(e), -21-9-18 (referring to “public utility facilities” collectively as “tracks, pipes, mains, conduits, cables, wires, towers, poles, and other equipment and appliances”); Ind. Code § 8-10-5-3 (distinguishing between “building and appurtenances” and “public utility facilities for power, light, heat or water”).

[33] With that framework in mind, Noblesville contends that the demolition of an existing residential home does not involve the location and use of a utility facility. It argues that the UDO’s demolition permit process merely ensures that the property is properly remediated, any environmental contaminants are properly handled, and the public is protected. Similar public protections are the purpose of Noblesville’s enforcement of building and fire codes against Duke as it builds the garage/office structure, according to Noblesville. We will address each project separately.

a. Substation Project

[34] Noblesville is not interfering with Duke’s decision to locate and use the transmission substation—arguably, a utility facility—on the Substation Project property. It is merely requiring Duke to adhere to local demolition requirements when razing existing residential buildings—clearly, not utility facilities, for the reasons stated by the trial court—on that utility-owned property. Enforcing the demolition requirements will not impact either Duke’s location or use of the transmission substation that Duke intends to build. Instead, Duke simply will be made to adhere to generally applicable safety guidelines when it is eliminating existing, non-utility facilities unnecessary to its operation.

b. Garage/Office Project

[35] The garage/office construction presents a closer question. In arguing for a broad definition of utility “facility,” Duke relies on three appellate decisions: *Graham Farms, Inc. v. Indianapolis Power & Light Co.*, 233 N.E.2d 656 (Ind. 1968); *Darlage v. E. Bartholomew Water Corp.*, 379 N.E.2d 1018 (Ind. Ct. App. 1978); and *Howell v. Ind. Am. Water Co.*, 668 N.E.2d 1272 (Ind. Ct. App. 1996). Duke contends that *Graham Farms*, *Darlage*, and *Howell* require reversal here because they involved a municipality’s objections to a utility’s construction project and the municipality’s attempts to enforce local ordinances to control or stop the project. And in each of the three decisions, the municipalities were not allowed to obtain relief from the courts.

[36] But Noblesville considers these same three cases supportive of its contrary position. Noblesville notes the demolition of a vacant home is far different from the “utility facilities” found in those cases: a high voltage electric transmission line in *Graham Farms*, a water production well site in *Darlage*, and an elevated water storage tank in *Howell*.

[37] We conclude, as the trial court did, that the garage/office building to be constructed is not a “utility facility.” The structure, as planned, easily could be occupied by any number of businesses. No utility power will be generated there. Duke's assertion that it need not seek approval from the IURC before building the garage/office also suggests that the structure is not a utility facility, given the breadth of IURC supervision of public utilities.

[38] Duke’s suggestion that Noblesville will use the UDO unreasonably to block actual utility facilities is speculative. And we note that although Noblesville’s unhappiness with the location of the planned transmission substation is undisputed, Noblesville still granted the demolition permit once Duke properly applied for it.

iii. Utility “Service”

[39] Duke also asserts that both projects relate to utility “service” and, thus, any ordinance issues must be determined by the IURC. *See* Ind. Code § 8-1-2-54. Duke bases this expansive view of Indiana Code § 8-1-2-54 on the General Assembly’s broad definition of utility “service”:

“Service” is used in this chapter in its broadest and most inclusive sense and includes not only the use or accommodation afforded consumers or patrons but also any product or commodity furnished by any public or other utility and the plant, equipment, apparatus, appliances, property, and facility employed by any public or other utility in performing any service or in furnishing any product or commodity and devoted to the purposes in which such public or other utility is engaged and to the use and accommodation of the public.

Ind. Code § 8-1-2-1(e).

[40] Noblesville agrees that Indiana Code § 8-1-2-54 confers exclusive jurisdiction of some utility disputes on the IURC, but it offers a narrower interpretation of Indiana Code § 8-1-2-54 than Duke. Indiana Code § 8-1-2-54, in this context, only applies to “a practice or act ‘affecting or relating to the service of any public utility,’” according to Noblesville. Appellee’s Br., p. 22 n. 7. Noblesville argues that it “is not challenging an act ‘affecting or relating to the service,’ but rather [Duke’s] attempts to avoid local rules of general applicability that do not control [Duke’s] utility service.” *Id.*

[41] Duke argues that the maintenance of the transmission lines is critical to providing utility “service,” and the Garage/Office Project is an essential part of timely maintenance. Likewise, Duke considers the demolition of the existing structures for the Substation Project as equivalent to constructing a transmission substation, a facility which directly relates to utility “service.” Duke urges this Court to find that both the transmission substation and the garage/office construction fall within the statutory scope of “furnishing . . . directly or

indirectly” utility “services” and “facilities.” *See* Ind. Code § 8-1-2-1(e). This would mean that Noblesville is precluded from obstructing such service through local enforcement of zoning ordinances and building codes.

[42] Accusing Duke of viewing “service” too broadly, Noblesville maintains that demolition of a home does not relate to utility “service.” Neither does the garage/office project, according to Noblesville, because the planned building simply is a parking facility for heavy equipment and a general office structure. We agree with Noblesville.

[43] The demolition of unnecessary residential structures for the Substation Project does not relate directly or indirectly to utility “service.” *See* Ind. Code § 8-1-2-1(e). The residential buildings are not facilities “employed by any public or other utility in performing any service or in furnishing any product or commodity and devoted to the purposes in which such public or other utility is engaged and to the use and accommodation of the public.” *Id.* The mere fact that the buildings are on land on which Duke plans to build a transmission substation is too tangential to establish that the demolition of the structures directly or indirectly relates to utility “service.”

[44] As to the Garage/Office Project, ensuring that the construction meets certain local standards aimed largely at preserving public safety and welfare does not impact directly or indirectly utility “service.” For instance, requiring Duke to adhere to the local building or fire codes when constructing the garage/office will not impact Duke’s ability to launch maintenance crews and equipment

from that structure once it is completed. Duke simply will be held to the same generally applicable building standards as other entities building garage or office structures in that municipality. Considering Duke's position that IURC has exclusive control over utility "service," Duke's contention that it will not, and need not, seek IURC approval of the garage/office construction supports our conclusion that this project does not directly or indirectly relate to utility "service." Accordingly, Duke has failed to establish that the trial court erred in finding that the trial court lacked authority to order that Duke comply with: 1) Art. 4, Part F, Section 4 of the UDO as to the demolition related to the Substation Project, and 2) Art. 4, Part F, Sections 1 and 2 before constructing buildings for the Garage/Office Project.

[45] If we were to rule otherwise, Duke could proceed to construct the garage/office without oversight by any governing body, given its failure to seek IURC approval and its eschewal of municipal oversight. But even Duke concedes that it is governed by state and federal building and fire codes. Although Duke suggests only state and federal entities may enforce building and fire codes against Duke, the General Assembly has specifically tasked municipalities with that duty. *See* Ind. Code § 36-7-2-9 (mandating municipalities "require compliance with . . . the code of building laws and fire safety laws that is adopted in the rules of the fire preventing and building safety commission under IC 22-13 . . ."). Duke offers no logical reason why it should be immune from fire and building code enforcement for new construction projects that Duke asserts are not subject to IURC approval or supervision.

[46] For these reasons, we affirm the trial court’s declaratory judgment finding Duke was subject to demolition permit, improvement location permit, and building permit requirements in the UDO, as set forth in that judgment.

III. Penalties and Defense Costs

[47] Duke also challenges the trial court’s order requiring Duke to pay \$150,000 in penalties and \$115,679.10 in Noblesville’s costs in enforcing Duke’s compliance with the UDO. We conclude that the trial court did not abuse its discretion in either imposing the penalties or awarding the costs.⁸

A. Propriety of Penalties and Defense Cost Award

[48] Duke contends all penalties and awards of Noblesville’s costs are improper. The trial court imposed the penalties and defense costs based on a provision in the UDO specifying that “[a]ny person convicted of violating [the UDO]” may be fined and ordered to pay Noblesville’s costs and expenses “related to adjudicating the offense.” UDO Article 15, Part A, Section 7; *see* Unified Development Ordinance – Document Viewer (encodeplus.com).

⁸ Citing only to the trial court’s summary judgment order, issued July 15, 2021, Duke asserts that Noblesville proceeded to impose another \$225,000 in penalties from the date of the summary judgment hearing (June 22, 2021) through the date of Duke’s application for the demolition permit (July 22, 2021). Appellant’s Br., p. 23. But neither the trial court’s orders nor the record before this Court reflects \$225,000 in new penalties. Instead, the summary judgment order only specified that “Noblesville shall be entitled, as a matter of law, *up to \$7,500 for each day after June 22, 2021*, that [Duke] delays in applying for a permit.” App. Vol. II, p. 37 (emphasis added). The amounts of penalties that Noblesville ultimately charged Duke after June 22, 2021, are not found in the appellate record. We therefore do not address any penalties beyond the \$150,000 imposed by the trial court in its summary judgment order. *See* App. R. 46(A)(8) (specifying that facts and arguments in the Appellant’s Brief must be supported by appropriate citations to the record or authority).

- [49] Reasonable penalties may be imposed by ordinances and statutes, when authorized, to induce compliance with their terms. *Whitewater Valley Canoe Rental, Inc. v. Bd. of Franklin Cnty. Comm'rs*, 507 N.E.2d 1001, 1009 (Ind. Ct. App. 1987). Whether a penalty is reasonable or excessive must be determined based on the particular circumstances. *Id.*
- [50] Duke contends that “conviction,” as used in the UDO, means “the act or process of judicially finding someone guilty of a crime” or “the judgment (as by a jury verdict) that a person is guilty of a crime.” Appellant’s Br., p. 54 (citing *Black’s Law Dictionary, Conviction* (11th ed. 2019)). Duke asserts that it could be “convicted of violating” the UDO only if Noblesville had filed a Local Ordinance Violation under Indiana Administrative Rule 8(B)(3). Instead, Noblesville filed a civil plenary action, which Duke contends could not generate a “conviction” justifying penalties or awarding defense costs under the UDO.
- [51] But Duke appears to elevate form over substance. As Noblesville notes, the General Assembly has provided specific means for municipalities to enforce local ordinances, and the courts have ruled that ordinance enforcement is a civil action. *See* Ind. Code §§ 36-1-4-11, -6-3, -6-4; *Boss v. State*, 944 N.E.2d 16, 21-23 (Ind. Ct. App. 2011). Noblesville sued under Indiana Code § 36-1-6-4, which allows a municipality to “bring a civil action . . . if a person . . . violates an ordinance regulating or prohibiting a condition or use of property” or “engages in conduct without a license or permit if an ordinance requires a license or permit to engage in the conduct.” This statute also authorizes a trial court in such an action to impose a penalty not to exceed \$2,500 for the first ordinance

violation and \$7,500 for “a second or subsequent violation” as well as “court costs and fees” consistent with statute. Ind. Code § 36-1-6-4(b)(8)-(9); *see also* Ind. Code § 36-1-3-8(a)(10)(B).

[52] Noblesville followed the enforcement process dictated by this Court and by statute. *See Boss*, 944 N.E.2d at 23 (ruling that “[a]n action to enforce an ordinance begins with a complaint and summons, must conform to the Indiana Rules of Trial Procedure, and the plaintiff’s case need only be proved by a preponderance of the evidence”). Duke does not address *Boss* in its reply brief. But *Boss* and Indiana Code § 36-1-6-4 control here.

[53] Although Duke cites appellate decisions where ordinance enforcement was accomplished through an administrative proceeding, *Boss* and Indiana Code § 36-1-6-4 authorize enforcement through a civil proceeding such as that filed by Noblesville. Therefore, we reject Duke’s claim that the trial court’s award of attorney fees and penalties was improper because Noblesville filed a civil, rather than an administrative, action.

B. Alternative Argument as to Propriety of Penalties

[54] Although Duke does not otherwise contest the propriety of the award of attorney fees and costs, it does challenge the penalties on other grounds. Duke first claims that it acted in good faith in refusing to obtain the permits and thus should not be penalized. Duke particularly notes that it submitted its demolition permit application to Noblesville less than a week after receiving the trial court’s order.

[55] But Duke cites no authority to support its position that alleged good faith bars penalties or that the increase in penalties for continuing violations was inappropriate. It has thus waived those claims. *See Carter v. Indianapolis Power & Light Co.*, 837 N.E.2d 509, 514 (Ind. Ct. App. 2005) (“A party generally waives any issue for which it fails to develop a cogent argument or support with adequate citation to authority and portions of the record.”).

[56] Waiver notwithstanding, Duke has failed to prove its good faith. It began demolishing the home and garage for the Substation Project despite a pending dispute with Noblesville over the need for a demolition permit and without seeking approval of any governing entity. If it believed the IURC had exclusive authority over the dispute, Duke could have filed a complaint with the IURC. It chose, instead, to flout the UDO and only applied for the permit after the trial court ruled in Noblesville’s favor many months later. The trial court did not abuse its discretion in imposing the penalties or in awarding Noblesville’s costs in enforcing the ordinance.

C. Appellate Attorney Fees

[57] Noblesville asks this Court to grant appellate attorney fees. Because these defense costs are authorized by the UDO, we remand to the trial court for a determination of the amount, if any, of appellate fees that Duke should pay Noblesville under the UDO.

[58] We affirm the trial court's judgment and remand for further proceedings related only to appellate fees.

Robb, J., and Pyle, J., concur.