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STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF SOUTHERN INDIANA GAS AND ELECTRIC COMPANY d/b/a VECTREN ENERGY DELIVERY OF INDIANA, INC., FOR: (1) AUTHORITY TO CONSTRUCT, OWN AND OPERATE A SOLAR ENERGY PROJECT AND A FINDING THAT SUCH PROJECT CONSTITUTES A CLEAN ENERGY PROJECT PURSUANT TO IND. CODE CH. 8-1-8.8; (2) ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION OF THE SOLAR ENERGY PROJECT PURSUANT TO IND. CODE CH. 8-1-8.5; AND (3) AUTHORITY TO TIMELY RECOVER COSTS INCURRED DURING CONSTRUCTION AND OPERATION OF THE PROJECT IN ACCORDANCE WITH IND. CODE § 8-1-8.5-6.5 AND IND. CODE § 8-1-8.8-11.	**CAUSE NO. 45086**	
	APPROVED:	MAR 2 0 2019

ORDER OF THE COMMISSION

Presiding Officers:
David E. Ziegner, Commissioner
David E. Veleta, Senior Administrative Law Judge

On May 4, 2018, Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc. ("Petitioner") filed a Verified Petition with the Indiana Utility Regulatory Commission ("Commission") seeking an Order: (1) authorizing Vectren South to construct, own and operate a solar energy facility and finding such facility constitutes a "clean energy project" pursuant to Ind. Code § 8-1-8.8-11; (2) issuing a Certificate of Public Convenience and Necessity ("CPCN") for the solar energy facility pursuant to Ind. Code ch. 8-1-8.5; and (3) authorizing Petitioner to timely recover costs incurred during the construction and operation of the project in accordance with Ind. Code § 8-1-8.5-6.5 and Ind. Code § 8-1-8.8-11. Petitioner contemporaneously filed the direct testimony and attachments of the following witnesses in support of its Verified Petition: Wayne D. Games, Vice President Power Supply, Matthew R. Brinkman, P.E., Solar Business Unit Manager, Burns & McDonnell, Thomas L. Bailey, Director of Industrial Sales & Economic Development, Vectren Utility Holdings, Inc. ("VUHI"), and J. Cas Swiz, Director, Rates and Regulatory Analysis for VUHI.

Also on May 4, 2018, Petitioner filed a Motion for Protection and Nondisclosure of Confidential and Proprietary Information ("Motion") in this Cause. In its Motion, Petitioner indicated certain information ("Confidential Information") that it intended to submit in this matter contains trade secrets as that term is defined under Ind. Code § 24-2-3-2. The Presiding Officers by Docket Entry dated May 17, 2018 found there was sufficient basis for a determination that the

Confidential Information should be held as confidential by the Commission on a preliminary basis. Petitioner submitted the confidential materials in accordance with the terms of the Docket Entry on May 18, 2018.

On August 13, 2018, Alliance Coal, LLC ("Alliance Coal") filed a Petition to Intervene which was granted by Docket Entry dated August 24, 2018. Citizens Action Coalition of Indiana, Inc. ("CAC") filed a Petition to Intervene on August 22, 2018.

On September 4, 2018, the Indiana Office of Utility Consumer Counselor ("OUCC") filed the direct testimony and attachments of the following witnesses: John E. Haselden, Senior Utility Analyst-Engineer, Electric Division, and Kaleb G. Lantrip, Utility Analyst, Electric Division.

Also on September 4, 2018, Alliance Coal filed the direct testimony and attachments of Charles S. Griffey, Energy Consultant. On September 6, 2018, CAC filed the direct testimony and attachments of its Executive Director, Kerwin L. Olson.

On September 18, 2018, Petitioner filed the rebuttal testimony and attachments of the following witnesses: Wayne D. Games, Matthew R. Brinkman, P.E., Peter J. Hubbard, Manager, Pace Global, Thomas L. Bailey, Justin M. Joiner, Director of Regulatory Policy and MISO Affairs, and J. Cas Swiz.

Also on September 18, 2018, CAC filed the cross-answering testimony of Kerwin L. Olson.

On October 10, 2018, Petitioner, the OUCC and CAC (collectively, the "Settling Parties") jointly submitted a Stipulation and Settlement Agreement ("Settlement Agreement") resolving all matters raised in this proceeding as among those parties. Also on October 10, 2018, Petitioner filed the supplemental testimony of Thomas L. Bailey in support of the Settlement Agreement. On October 11, 2018, Petitioner filed the supplemental testimony of J. Cas Swiz in support of the Settlement Agreement, and the OUCC filed the testimony of Cynthia M. Armstrong in support of the Settlement Agreement.

On October 25, 2018, Alliance Coal submitted the testimony of Charles S. Griffey in opposition to the Settlement Agreement. On November 1, 2018, Petitioner filed the rebuttal testimony of Wayne D. Games in response to Mr. Griffey's testimony opposing the Settlement Agreement and the OUCC filed rebuttal testimony of Cynthia M. Armstrong.

A public evidentiary hearing was held in this Cause at 9:30 a.m. on November 19, 2018, in Hearing Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana. Petitioner, the OUCC, CAC and Alliance Coal appeared at and participated in the hearing and their respective evidence was admitted into the record without objection.

Based upon the applicable law and the evidence presented, the Commission finds:

1. **Notice and Commission Jurisdiction.** Notice of the evidentiary hearing in this Cause was given and published by the Commission as required by law. Petitioner is a public utility and an eligible business as defined in Ind. Code §§ 8-1-2-l(a) and 8-1-8.8-6. The Commission has

jurisdiction to approve Petitioner's request for construction of clean energy projects under Ind. Code ch. 8-1-8.8 and Ind. Code ch. 8-1-8.5. The Commission, therefore, has jurisdiction over Petitioner and the subject matter of this proceeding.

2. **Petitioner's Organization and Business.** Petitioner is a public utility incorporated under the laws of the State of Indiana. Petitioner has authority to engage in and is engaged in rendering electric service within Indiana. Petitioner owns, operates, manages, and controls, among other things, plant, property, equipment, and facilities that are used and useful for the production, storage, transmission, distribution, and furnishing of electric utility service to approximately 145,000 customers in southwestern Indiana. Petitioner is a wholly-owned subsidiary of VUHI, which is a wholly-owned subsidiary of Vectren Corporation.

3. **Relief Requested.** In its Verified Petition, Petitioner requested that the Commission issue an Order: (1) authorizing Petitioner to construct, own and operate a solar energy facility totaling approximately 50 megawatts of alternating current ("MWac") (the "Solar Project") and finding such facility constitutes a "clean energy project" pursuant to Ind. Code § 8-1-8.8-11; (2) issuing a CPCN for the Solar Project pursuant to Ind. Code ch. 8-1-8.5; and (3) authorizing Petitioner to timely recover costs incurred during the construction and operation of the project in accordance with Ind. Code § 8-1-8.5-6.5 and Ind. Code § 8-1-8.8-11. The proposed Solar Project will be located on approximately 300 acres of land within Spencer County, Indiana and interconnected to the Midcontinent System Operator ("MISO") transmission system.

4. **The Parties' Respective Cases-in-Chief.**

A. **Petitioner's Case-in-Chief.** Wayne D. Games, Petitioner's Vice President – Power Supply, described and provided support for the Solar Project, Petitioner's decision to pursue the Solar Project, as well as provided an overview of the benefits of the Solar Project and its estimated cost. Mr. Games also provided support for the request for the Commission to issue Petitioner a CPCN for construction of the Solar Project.

Mr. Games explained that the Solar Project is Petitioner's proposal to construct a solar generating facility totaling approximately 50 MWac on approximately 300 acres in Spencer County, Indiana, which will be leased from local property owners. Mr. Games explained that the Solar Project originated from Orion Renewable Energy Group, LLC ("Orion") having leased 300 acres in Spencer County in mid-2017, with the goal of constructing a 50 MWac solar generating facility and either entering into a power purchase agreement or partnering with Petitioner on the project. Mr. Games testified that Petitioner recognized the unique opportunity presented, including the close proximity to a substation, and subsequently entered into an Asset Purchase Agreement with a subsidiary of Orion by which Petitioner would acquire from Orion the assets and associated rights to complete the Solar Project. The Asset Purchase Agreement is contingent on the Commission's approval of the requested relief in this proceeding. Mr. Games stated that Petitioner entered into a Module Sale Agreement with First Solar Electric, LLC ("First Solar") whereby First Solar would sell modules to Petitioner at a fixed price. Vectren also entered into an Engineering, Procurement, and Construction Agreement ("EPC Agreement") with First Solar.

Mr. Games indicated Petitioner selected First Solar's Series 6 photovoltaic ("PV") thin-film modules to install for the Solar Project. The Solar Project will include 150,000 thin-film

modules, which will be mounted on a single axis tracking system, offering the ability to track the sun and achieve about 13% additional output for each module. Mr. Games also described other components of the Solar Project, including inverters and a site substation. He said the expected life of the Solar Project is approximately 30 years, but Petitioner would acquire rights to 50-year property leases, so the Solar Project could continue to operate beyond the expected life.

Mr. Games explained that the cost estimates for the total Solar Project will be approximately $76.1 million. Mr. Games testified that these costs are reasonable in comparison to similar projects.

Mr. Games stated that the addition of solar resources is an important part of Petitioner's portfolio, and that the Solar Project is consistent with achieving the Preferred Portfolio Resource mix set forth in Petitioner's 2016 Integrated Resource Plan ("IRP"). He stated that Petitioner's customers are increasingly interested in the use of more renewable resources to meet their energy needs. Additionally, Mr. Games explained that the Energy Policy Act of 2005 created a 30% income tax credit ("ITC") for residential and commercial solar energy systems placed in service, and 2019 is the last year to commence construction and receive the full 30% tax credit. Mr. Games also testified that the Solar Project will lead to Petitioner owning, and being able to sell, Solar Renewable Energy Certificates ("RECs"). Mr. Games stated Petitioner anticipates commencing the Solar Project by April 1, 2019, the project being substantially completed by the end of August 2020, and being on-line in the fourth quarter of 2020.

Mr. Games also testified that the Solar Project meets other statutory considerations, including that the Solar Project is a "clean energy project" under Ind. Code § 8-1-8.8-2 and that solar energy is listed as a "clean energy resource" and thus a "renewable energy resource" under Ind. Code § 8-1-8.8-10. Petitioner has requested ongoing review of the Solar Project pursuant to Indiana's CPCN law, and Mr. Games stated that it would provide a written report at the end of each year until the project is completed. In addition, Petitioner will notify the Commission within 60 days of the project's in-service date, and provide ongoing informational updates in its rider filings. Mr. Games stated that the Solar Project is reasonable and necessary and in the public interest, benefiting Indiana and Petitioner's customers by diversifying Petitioner's generation portfolio, providing additional solar generation in Indiana, encouraging economic development and meeting customers' desires to have renewable energy options available.

Matthew R. Brinkman, Solar Business Unit Manager for Burns & McDonnell's Energy Group, supported the reasonableness of the estimated cost of the Solar Project, including a cost comparison to similar projects.

Mr. Brinkman reviewed the background leading to the Solar Project, as well as the Module Sale Agreement with First Solar, which locked in a price for thin-film Series 6 solar modules. Mr. Brinkman stated that at the time the Module Sale Agreement was negotiated, there was significant price uncertainty in the solar market due to the U.S. International Trade Commission's recommendation for tariffs on solar modules. Mr. Brinkman stated tariffs on solar modules, which were recommended to be approved in January 2018, could have effectively doubled solar module costs. Therefore, Petitioner executed the Module Sale Agreement in December 2017, achieving cost certainty for Petitioner and its customers, just before imposition of a 30% tariff on

polycrystalline PV modules. Mr. Brinkman testified that the price agreed to in the Module Sale Agreement was a competitive price in the market.

Mr. Brinkman also supported the quality of the materials selected and the contractor selected for EPC services. Mr. Brinkman stated that it was prudent for Petitioner to select First Solar as the EPC contractor because First Solar provided a competitive fixed price for PV modules, and because Burns & McDonnell, through experience, believes First Solar is a reputable and bankable EPC contractor. Mr. Brinkman explained that Burns & McDonnell confirmed the cost estimate was comparable to other similar projects. Mr. Brinkman stated the equipment and material costs built into the EPC Agreement were consistent with market conditions, and labor, subcontractor, and soft costs were reasonable.

Mr. Brinkman concluded that the costs of the Solar Project are consistent with, if not lower than, market conditions for a utility-scale PV project, using union labor, in Indiana. Mr. Brinkman also concluded the decision to contract with First Solar for thin-film PV modules and EPC work protected Petitioner and its customers from module pricing increases from the solar tariff.

Thomas L. Bailey, Director of Industrial Sales & Economic Development for VUHI, explained why the addition of renewable energy to a utility's resources has become increasingly important to Petitioner's existing and potential large customers. Mr. Bailey testified that large customers, including approximately twenty corporations within Petitioner's service territory, have created sustainable and renewable energy goals or support the efforts taken to construct the Solar Project. Mr. Bailey specifically noted that Toyota, AstraZeneca, Walmart, Berry Global, St. Vincent and Deaconess Health Networks, and the Evansville Vanderburgh School Corporation support the Solar Project.

Mr. Bailey also stated that adding non-carbon resources plays a role in retaining large customers. Mr. Bailey testified that having a diverse portfolio will be a factor in attracting new large customers to locate in Petitioner's territory. Mr. Bailey said that the addition of renewable resources provides other benefits, including the growth of jobs in the community, the creation of construction jobs, and that the utility's fixed costs will eventually be spread over a larger customer base to the benefit of all customers.

J. Cas Swiz, Director of Rates and Regulatory Analysis for VUHI, explained the proposed ratemaking and accounting treatment for the Solar Project and the proposed use of the Clean Energy Cost Adjustment ("CECA") mechanism, which the Commission approved in Cause No. 44909. Mr. Swiz further described why the Solar Project qualifies as a clean energy project under Ind. Code ch. 8-1-8.8.

Mr. Swiz testified that Ind. Code ch. 8-1-8.8 provides for financial incentives including the timely recovery of costs and expenses incurred during the construction and operation of clean energy projects such as the Solar Project. Mr. Swiz summarized Petitioner's request that the Commission approve the necessary accounting and ratemaking treatment to permit Petitioner to timely recover, through the CECA, the project costs it will incur during the construction and operation of the Solar Project through its rates. Mr. Swiz stated that if approved, Petitioner will include these costs in its annual CECA filing once all Solar Project investments have been placed into service.

Mr. Swiz next proposed that Petitioner depreciate all investments within the Solar Project over a period of 30 years. Mr. Swiz stated that CECA revenue requirements will continue to be based on up to date cost and sales forecasts and will be allocated to Petitioner's retail rate schedules using the modified four coincident peak ("4CP") demand allocation percentages utilized in allocating Petitioner's Reliability Cost and Revenue Adjustment ("RCRA"). Mr. Swiz also stated that approved CECA revenue requirements will be reconciled with actual recoveries in subsequent annual updates, in accordance with Ind. Code ch. 8-1-8.8. Mr. Swiz noted that Petitioner is not requesting construction work in progress ratemaking treatment for the Solar Project, but that it will accrue an allowance for funds used during construction ("AFUDC").

Mr. Swiz next explained how the CECA revenue requirement will be calculated. Mr. Swiz stated that in each annual CECA update, Petitioner will calculate a revenue requirement on all approved investments placed in-service that includes the return on capital investment, incremental property tax, depreciation and O&M expenses, as well as recovery of the regulatory assets recorded through the deferral of operation and maintenance ("O&M") expenses, the interim deferral of depreciation expense, and post in-service carrying costs ("PISCC"). Mr. Swiz sponsored illustrative schedules demonstrating the components of the CECA revenue requirement, as well as other schedules describing proposed accounting associated with the Solar Project. Finally, Mr. Swiz described the modified CECA tariff sheet, which updates the allocation percentages to reflect those utilized in Petitioner's RCRA mechanism.

B. OUCC's Case-in-Chief. John E. Haselden, Senior Utility Analyst-Engineer in the OUCC's Electric Division, testified that Petitioner has not demonstrated that the Solar Project meets applicable statutory requirements under Ind. Code § 8-1-8.5-5(b)(3) or Ind. Code § 8-1-8.5-7(4)(B). Mr. Haselden also asserted that the standard revenue requirements model Petitioner used has certain flaws that, when applied to projects such as the Solar Project, results in a cost to ratepayers that is significantly higher than if a financing structure appropriate to this type of project was used. Mr. Haselden also listed numerous ways in which the Solar Project does not further the public interest.

Mr. Haselden stated that the Solar Project does not meet the statutory requirements under Ind. Code § 8-1-8.5-5. Mr. Haselden said that the Solar Project is not necessary to meet a need for capacity reserves or energy at a cost better than can be obtained from the market or other sources as evidenced by Petitioner's IRP. Mr. Haselden testified that the addition of the Solar Project will have a de minimis effect on Petitioner's power supply diversification. Mr. Haselden also stated that after reviewing Petitioner's modeling output, 50 MW of solar in 2019 was not an optimal economic selection over other resources. Additionally, Mr. Haselden testified that the proposed Solar Project is not necessary for capacity or reserve margin requirements to serve Petitioner's customers.

With respect to the Solar Project's intersection with customers' desires to reach their renewable goals or attract large customers, Mr. Haselden stated that the Solar Project does not advance either of these goals because no renewable energy will be delivered to Petitioner's customers as a result of the Solar Project. Additionally, the large customers were not informed that the RECs would be sold to the market and that the power they might receive from Petitioner will contain no renewable energy. Mr. Haselden testified that Petitioner's stated intent to sell the RECs to the market cancels the value of the renewable attributes of the Solar Project to both Petitioner

and those customers who wish to commit to the Corporate Renewable Energy Buyer's Principles. Mr. Haselden provided some alternatives by which Petitioner could structure the Solar Project to satisfy the desire of large customers who have expressed an interest in solar power. Mr. Haselden testified that Petitioner did not explore alternatives, despite there being no urgent need for the Solar Project to be completed in 2020 in order to satisfy customer needs.

Mr. Haselden also voiced concerns with Petitioner's procurement process for the Solar Project, in that it sought no competitive alternatives to acquiring solar resources within its service territory. Mr. Haselden opined that Petitioner did not pursue alternatives because using the CECA mechanism to pass costs to ratepayers is a riskless way to earn a return. Mr. Haselden also explained the price under the terms of a purchased power agreement ("PPA") should be less than that of a utility-owned project. From his analysis, Mr. Haselden concluded that, all things being equal, a project will cost ratepayers more under traditional ratemaking than the same project from which the power is obtained under the terms of a PPA, and that Petitioner should be required to conduct requests for proposals ("RFPs") for renewable energy projects.

Mr. Haselden stated a concern with regard to the estimated cost of the Solar Project. He said that because the historical and current trend is a reduction in costs for solar projects, Petitioner's decision to enter into a fixed price contract locked in a higher price than what can be realized today. Mr. Haselden noted that he understood Hoosier Energy had entered into a PPA to purchase power from a 200 MW Solar Farm in Randolph County in the 4 cents range and responses to NIPSCO's RFP for solar power had an average price of 3.6 cents per kWh. Mr. Haselden also stated that in order to attain the full ITC, Petitioner need only complete a small amount of work in 2019 and complete the Solar Project by December 31, 2023.

Mr. Haselden concluded by recommending the Commission deny a CPCN for the Solar Project. Alternatively, Mr. Haselden recommended the Commission require Petitioner to acquire solar power from its proposed Solar Project or some other project at the lowest reasonable cost to participating customers.

Kaleb G. Lantrip, Utility Analyst in the OUCC's Electric Division, addressed proposed accounting and ratemaking treatment for the Solar Project. Mr. Lantrip reviewed Petitioner's CECA mechanism approved by the Commission in Cause No. 44909. Mr. Lantrip reviewed how Petitioner is proposing to recover its Solar Project costs incurred during construction and operation, as well as other accounting aspects of its proposal.

Mr. Lantrip said he disagreed with Petitioner's request to change the allocation percentages in the CECA mechanism to match those in the RCRA, instead recommending that Petitioner address the allocation issue in its first CECA mechanism, so that the OUCC and Commission can evaluate whether the RCRA allocation percentages are also appropriate for the CECA mechanism. Mr. Lantrip also disagreed with Petitioner's proposal to recover Solar Project costs through the CECA mechanism, due to Mr. Haselden's recommendation that the Commission deny Petitioner's requested Solar Project CPCN.

Mr. Lantrip also voiced concerns with Petitioner's proposal to use its weighted average cost of capital ("WACC") rate to accrue deferred PISCC on the Solar Project. Mr. Lantrip proposed that if the Commission approved the Solar Project, Petitioner should be required to use the post-

in-service AFUDC rate for the post-in-service capitalization of the costs of funds until the time new rates are implemented for the CECA mechanism.

C. Alliance Coal's Case-in-Chief. Charles S. Griffey provided testimony on behalf of Alliance Coal. Mr. Griffey stated that Petitioner has not claimed there is a capacity need for the Solar Project, as its IRP indicates the utility will have excess capacity through at least 2036. Mr. Griffey believes Petitioner's justifications for pursuing the Solar Project do not provide a reasonable basis to grant a CPCN, because the utility did not provide data or analysis to show that the Solar Project will lead to the provision of reliable, efficient, and economical power for customers.

Mr. Griffey explained that the Solar Project, as proposed, is not cost effective, and he stated that the Solar Project will cost customers millions of dollars annually with little hope that the Solar Project is cost justified. Mr. Griffey stated that based on his analyses, the Solar Project does not break even on an annual basis for 15 - 25 years, and is an $11 million - $38 million loss for customers if it commences operation in 2020. Mr. Griffey also claimed that Petitioner's assertion that the Solar Project is needed for fuel/generation diversity is more of a slogan than a strategy. Mr. Griffey stated the utility did not quantify the need for generation diversity in its 2016 IRP. Mr. Griffey also stated that Petitioner has strong financial incentives to favor turning fuel costs into rate base recovery, even if the net effect is a loss to customers. Mr. Griffey pointed out that, from a relative solar resource efficiency perspective, Indiana is not a good location to site the Solar Project.

Mr. Griffey criticized Petitioner's claims regarding the impact of the Solar Project on economic development, asserting that all of Petitioner's customers should not have to pay for the cost of the Solar Project when just certain customers have claimed to want to purchase more renewable resources. Mr. Griffey suggested that Petitioner provide certain customers access to more renewables via a buy-through type tariff to assign the cost of the Solar Project directly to those customers desiring more renewables, or by tracking the excess solar costs above market revenues and charging the volunteering customers ratably for such costs.

Mr. Griffey addressed Petitioner's claim that the Solar Project is consistent with its 2016 IRP, claiming that the utility has not performed the modeling in conjunction with seeking approval of new generation. Further, Mr. Griffey stated that Petitioner has not waited as long as reasonably possible to commit to solar resources, and contended that the Solar Project can wait longer before commencement and be eligible for a portion of the ITC. Mr. Griffey also pointed out that, according to some, the imposition of federal tariffs on polycrystalline modules do not portend significant increases in the cost of solar panels.

Mr. Griffey claimed that despite the Solar Project's 50 MW nameplate capacity, it cannot reliably provide capacity near that amount. Rather, using MISO's measure of effective capacity for a new solar project's generating capacity of 50% of its nameplate capacity, the cost per effective unit of capacity is $3,047/kw. Mr. Griffey stated that after accounting for Petitioner's 0.5% annual decline in efficiency, the cost per unit of effective capacity is $3,274/kw. Mr. Griffey performed sensitivity analyses of the Solar Project, and testified that the Solar Project has a net present loss of approximately $11 million.

Mr. Griffey explained that the Solar Project is best thought of as a merchant generating unit because the Solar Project's cost/benefit is driven by the market revenues received. Mr. Griffey stated that wholesale prices and price expectations do not support building a solar facility in the Indiana portion of MISO today, even with the 30% ITC. Instead, Mr. Griffey suggested Petitioner could acquire development rights and delay the decision to build the Solar Project in the future.

D. CAC's Case-in-Chief. Kerwin L. Olson, CAC's Executive Director, provided testimony in support of Petitioner's request to construct the Solar Project. Mr. Olson reviewed CAC's strong support for solar energy generally. Mr. Olson stated that while CAC would like to see Petitioner make a much larger investment in clean and sustainable energy, the Solar Project represents a small step in the right direction. He testified that the Solar Project will help diversify Petitioner's energy portfolio. Mr. Olson also explained that the costs for the Solar Project are lower than recent Commission approved projects by Duke Energy Indiana, LLC (Cause No. 44734) and Indiana Michigan Power Company ("I&M") (Cause No. 44511).

Mr. Olson described Petitioner's plan to sell the RECs in the market and flow the financial benefits back to customers, and stated while CAC may agree with that proposal, the issue needs further discussion. He suggested that Petitioner consider holding on to the RECs in the short term and look into the possibility that selling them directly to customers in its service territory may assist those customers to meet their goals and initiatives.

5. Petitioner's Rebuttal Testimony. Petitioner's witness Games provided rebuttal testimony regarding the importance of the Solar Project as well as the OUCC's incorrect interpretation of Ind. Code § 8-1-8.5-7. Mr. Games explained that Mr. Haselden's contention that the Solar Project did not meet the statutory requirements of Ind. Code § 8-1-8.5-7(4)(B) was incorrect because there is no requirement that a public utility use a competitive bidding process to select a contractor to perform the EPC work for the project. Mr. Games stated that a public utility that does not use a competitive bidding process is required to obtain a CPCN, but the statutory scheme does not impose a competitive bidding requirement. Mr. Games said that Petitioner is seeking a CPCN in this proceeding precisely because it did not competitively bid the development or EPC components given the unique nature of the opportunity. Mr. Games testified that Mr. Haselden's suggestion that utilities be required to conduct RFPs for renewable energy projects would constitute a new legal requirement in the State of Indiana. Mr. Games then reiterated the steps Petitioner took to ensure the prices of components of the Solar Project are reasonable and consistent with the results of a competitive bidding process.

Mr. Games testified that the Solar Project met all of the criteria Petitioner would have looked for had the project been competitively bid, including the locally-generated renewable power, direct interconnection with low grid infrastructure costs, size and timing consistent with its 2016 IRP, fixed low cost of panels, and use of a reputable contractor.

Mr. Games challenged the OUCC and Alliance Coal's understatement of the importance of green power and diversification. Mr. Games stated that the Solar Project as conceived is beneficial, necessary and affordable. Mr. Games also testified that Indiana's statutory and regulatory scheme expressly recognizes the addition of renewable energy resources is both beneficial and necessary, and the Commission has established a precedent of supporting renewable resources as well as diversification of generation resources.

Mr. Games disagreed with Mr. Haselden's statement that the Solar Project will not aid in the diversification of Petitioner's power supply because the Solar Project will represent an approximate 57% increase in Petitioner's renewable resources. Mr. Games reiterated the number of benefits that will be derived from the addition of the Solar Project. Mr. Games testified that the most important system need addressed by the Solar Project is bringing diversity of fuel sources to Petitioner's generation portfolio. Mr. Games also stated that the Solar Project will serve as a complement to the proposed combined cycle gas turbine ("CCGT") plant, as the CCGT can be ramped up or down quickly to correspond to the Solar Project's output, especially at peak times.

Mr. Games addressed the contention that Petitioner expects to have surplus capacity of 200 MW in 2025 and 100 MW in 2036, explaining that these figures are based on a number of assumptions, including that the CCGT plant is approved as proposed. Mr. Games said if the fired portion of the plant is not approved, Petitioner will have only 51 MW of surplus capacity in 2025, including the generation from the Solar Project. Mr. Games reiterated that customers' desire for generation diversity and the addition of renewable resources, rather than capacity shortfall, is the main driver for the Solar Project.

Mr. Games then addressed the OUCC's pricing arguments. Instead of analyzing recent Commission-approved solar projects, Mr. Games stated that Mr. Haselden used summary information regarding projects that might be undertaken in the next five years. Mr. Games stated it is unfair to compare Petitioner's Solar Project to an assumed price of electricity that might be generated at a solar facility that may or may not be constructed.

Finally, Mr. Games explained that, contrary to Mr. Haselden's testimony, Petitioner did consider options besides simply purchasing the Solar Project, including entering into a PPA for energy produced at the site or potentially partnering in the project, but Petitioner did not consider those options to be in the best interest of customers.

Mr. Brinkman responded to Mr. Haselden and Mr. Griffey regarding the cost, timing, and location of the Solar Project. Mr. Brinkman disagreed with testimony that the Solar Project is too costly in comparison to other projects. With respect to the potential Hoosier Energy PPA with EDP Renewables, Mr. Brinkman stated the project is not comparable because the PPA is for a project three to four times the size of the Solar Project. Moreover, Mr. Brinkman stated that Petitioner will own generation assets for thirty to fifty years. Mr. Brinkman concluded that Mr. Haselden's comparison was an apples-to-oranges comparison. Mr. Brinkman also challenged Mr. Haselden's comparison of PPAs included in a NIPSCO IRP Public Advisory slide.

In response to Mr. Haselden's suggestion that Petitioner acquire land leases from Orion and conduct an RFP for the EPC contract on the site, Mr. Brinkman stated this would not have resulted in a significant decrease in project cost. Mr. Brinkman explained that First Solar conceded to an open book process in which competitive bids for equipment and subcontracted labor were provided to Petitioner and Burns & McDonnell for review, which resulted in an EPC cost which was competitive in the market.

Mr. Brinkman also rebutted the concerns about the operations and sizing of the Solar Project. Mr. Brinkman disagreed with Mr. Griffey's inference that solar PV is not reliable,

testifying that First Solar's solar PV fleet has averaged 99.5% Effective Availability in recent years according to an industry publication.

Mr. Brinkman also testified that any decrease in solar prices is speculative compared to the known benefit of the ITC. Mr. Brinkman stated that when the 30% tariffs were enacted, prices on certain PV modules did increase. He then explained that China revised its renewable energy policy, reducing global demand for solar modules, and reducing the price to pre-tariff levels.

Peter J. Hubbard, Manager of Pace Global, testified regarding the benefits and cost of the Solar Project in response to Mr. Griffey's testimony. Mr. Hubbard stated it is inappropriate to evaluate the Solar Project on a stand-alone basis by determining whether it would generate a profit by offering energy in the MISO market. Mr. Hubbard said it is not appropriate to evaluate utility-owned generation facilities purely in terms of whether they would be profitable.

Mr. Hubbard explained that the Solar Project should be evaluated as one component of Petitioner's generation portfolio, the mix of which is guided by its IRP process. He said the Solar Project should also be considered in light of Indiana's stated policy of encouraging the participation of utilities in alternative energy resources. Mr. Hubbard reviewed the detailed aspects of the IRP process, and the importance of risk analysis in developing IRPs, demonstrating that prudent diversification is more than a slogan and is important in mitigating many types of risk. Mr. Hubbard also pointed out that during the IRP process, a utility must consider all of its generation assets to determine the optimal mix of generation assets to meet its long-term needs.

Mr. Hubbard explained that deployment of 50 MW of solar generation in 2019 was considered in Petitioner's 2016 IRP, and was part of its Preferred Portfolio Plan in the 2016 IRP and the 2017 base case update. Mr. Hubbard also reviewed the details of the selection of the Preferred Portfolio Plan in the 2016 IRP, including an evaluation of the risk of each portfolio. Mr. Hubbard also explained that the 2016 IRP considered timing issues related to implementation of solar resources. He concluded that the Solar Project will be an important component of Petitioner's more diversified generation portfolio.

Mr. Bailey provided rebuttal testimony in which he discussed Petitioner's decision to retain the RECs associated with the Solar Project. He explained that, after further consideration of the significant customer desire for local renewable generation, Petitioner has elected to not sell RECs on the open market at this time, which addresses a number of concerns raised by Mr. Haselden.

Mr. Bailey explained that since submitting direct testimony in this proceeding, Petitioner has continued to receive requests from its current customer base, as well as from site selectors reviewing land options for new industrial customers to the area, regarding the availability of green power. Mr. Bailey discussed the focus groups Petitioner conducted, as well as the multiple stakeholders and individual customers who participated in the 2016 IRP process.

Mr. Bailey also rebutted Mr. Haselden's proposal that Petitioner use a letter of intent to commit solar energy generation to certain large customers. He explained that Petitioner considered this option, and while this option works for certain customers, there is no one-size-fits-all solution for all customers, and a letter of intent model is inadequate to support development of the Solar Project. Similarly, Mr. Bailey stated his opinion that a community solar farm, a customer-centric

project open to only certain customers, a demand-side management program, or a buy-through tariff all have flaws which data shows have little likelihood of success.

Justin M. Joiner, Petitioner's Director of Regulatory Policy and MISO Affairs, explained that the MISO Generator Interconnection ("GI") process, which eventually enables the generator to connect to the MISO transmission system, currently is averaging over 2.5 years to complete. Mr. Joiner explained that if Petitioner were to cancel its planned Solar Project and begin an RFP process, it would lose priority of its current project in the MISO GI queue and be forced to restart the 2.5 year process. Thus, Petitioner would not realize the full 30% ITC benefits, since construction would not begin in 2019.

Mr. Joiner explained due to the nature of some of the expenses associated with the delivery of power to the utility's system, the costs of power generated by an RFP process, as well as the RFP referenced by NIPSCO's IRP Public Advisory slide, could be higher. He stated that the total delivered cost includes the cost of the generator itself plus the required GI upgrades, the transmission service to deliver the energy to a specific point and the estimated cost of congestion. Similarly, as there is not yet a GI request for the potential Hoosier Energy project, the cost for the project cited in Mr. Haselden's testimony is speculative. Mr. Joiner also disagreed with Mr. Griffey's assessment that southern Indiana is not a good location for solar generation, as early estimates from experts suggest the Solar Project will achieve a higher MISO unforced capacity rating once it becomes operational.

Mr. Joiner disagreed with Mr. Griffey's market assessment on MISO energy and capacity prices, as MISO is in the middle of several market reforms that are changing energy market principles and outcomes. He also stated that there are circumstances that could cause Petitioner's capacity position to change and be exposed to market volatility. For these reasons, adding capacity from the utility-owned Solar Project is prudent.

Mr. Swiz provided rebuttal testimony in response to the proposals made by the OUCC related to the CECA for the Solar Project. He stated that he agreed with Mr. Lantrip's recommendation that the first CECA filing should address proposed allocation changes. However, he disagreed with Mr. Lantrip's recommendation that the Commission require the post-in-service AFUDC rate be used until new rates are implemented through the CECA mechanism. Mr. Swiz noted that the Commission has in six instances in the past five years approved the WACC rate utilized for the PISCC accrual after the in-service date but prior to inclusion in Petitioner's rates. Mr. Swiz concluded that Petitioner was not requesting anything unique in this regard.

6. **CAC's Cross-Answering Testimony.** In his cross-answering testimony, CAC witness Olson responded to certain claims made by Mr. Haselden in his testimony. Mr. Olson disagreed with Mr. Haselden's contention that there are only a "few" large customers with renewable energy, carbon reduction, or sustainability goals. Mr. Olson cited to industry sources to emphasize that nearly 75% of Fortune 100 companies, close to 50% of Fortune 500 companies, and the country's four largest banking institutions are more than a "few," and Mr. Haselden's testimony on this point should not be relied upon by the Commission.

Mr. Olson also disagreed with Mr. Haselden's testimony that there is only a "small, but vocal group" desiring to increase investments in renewable energy. Mr. Olson cited to polls indicating that the opposite is true.

7. **Settlement Agreement.**

A. Agreement that CPCN Should Be Granted. On October 10, 2018, Petitioner, the OUCC and CAC entered into a Settlement Agreement in which they agreed that the Commission should grant Petitioner a CPCN pursuant to Ind. Code ch. 8-1-8.5, to construct the Solar Project as described with specificity in Petitioner's case-in-chief. The Settling Parties further agreed Petitioner's construction cost estimate for the Solar Project of $76.174 million, including a contingency, exclusive of AFUDC and post-in-service carrying costs, constitutes a reasonable estimate of the construction costs for the Solar Project and should be approved by the Commission in accordance with Ind. Code § 8-1-8.5-5. The Settling Parties also agreed the Solar Project is a "clean energy project" as defined in Ind. Code § 8-1-8.8-3.

B. Agreement to Use a Levelized Rate. The Settling Parties acknowledged that due to the special nature of the Solar Project, including the availability of the ITC to offset project costs, the Solar Project represents a unique opportunity to evaluate alternative approaches to traditional ratemaking not applicable to other CPCN projects. Based on that understanding, the Settling Parties structured the ratemaking terms set forth in the Settlement Agreement to use a fixed levelized rate per kWh of produced energy for the life of the investment in the Solar Project. The Settling Parties agreed to an initial levelized rate of $0.05452 per kWh to be used to determine the amount recovered annually with respect to Petitioner's investment in the Solar Project (the "Levelized Rate"), which is subject to adjustment only under the following circumstances:

- The Levelized Rate will be adjusted upon issuance of any final order in a future base rate proceeding to capture the impact of changes to Petitioner's approved return on equity ("ROE").

- The Levelized Rate will be adjusted if any adjustments are made to the law governing Indiana State and/or Federal Income Tax Rates that result in a change to other approved tariff rates.

- The Levelized Rate will be adjusted if any Liquidated Damages are received by Petitioner in accordance with the provisions of the EPC Agreement.

The Levelized Rate is based upon certain assumed levels of production from the Solar Project on an annual basis ("Production Baseline"), which are set forth in the Settlement Agreement. To the extent actual annual production from the Solar Project for a rolling three-year period is less than 90% of the Production Baseline for the same rolling three-year period and such deviation is not the result of a force majeure event (*e.g.* and without limitation, tornado, lightning damage, fire, earth quake, acts of state or governmental action impeding performance), Petitioner will credit the CECA in the next annual filing in the amount of the Levelized Rate multiplied by the difference between the rolling three-year period actual annual production and Production Baseline. In the event that actual annual production from the Solar Project for a rolling three-year period is greater than 110% of the Production Baseline for the rolling three-year period, Petitioner

will include as a recoverable cost in the CECA in the next annual filing the amount of the Levelized Rate multiplied by the difference between the rolling three-year period actual annual production and Production Baseline.

C. Agreement to Use CECA. The Levelized Rate will be incorporated in the CECA mechanism, which the Commission approved on August 16, 2017 in Cause No. 44909 for renewable energy projects. The CECA will recover: (a) the revenue requirement associated with the three solar energy projects totaling approximately 4.3 MWac and two energy storage systems approved in Cause No. 44909; and (b) the approved revenue requirement for the Solar Project. The CECA will be filed annually as a subdocket in Cause No. 44909. The procedures and contents of each filing are set forth in the Settlement Agreement. The CECA will be allocated to the Rate Schedules in each CECA tracker filing using the Modified 4CP Allocators Factors.

D. Agreements with Respect to RECs and Customer-Specific Contracts. The Settlement Agreement provides that any RECs obtained by Petitioner for energy produced by the Solar Project will be utilized by Petitioner in the best interest of its customers. The Settling Parties agree this could include retaining the RECs or, after consultation with the OUCC and CAC, selling some amount of RECs to specific customers or to the REC market. The net proceeds resulting from the sale of RECs will be used as an offset to revenue requirements and returned to customers through the CECA.

In the event a specific customer elects to pay directly for energy produced by the Solar Project, Petitioner agrees to sell this energy and the corresponding RECs at a rate equal to the Levelized Rate, pursuant to a specific contract or rate approved by the Commission; provided, however, that each of the Settling Parties reserves the right to recommend a different rate for Commission approval. All proceeds from contracts for the sale of energy produced by the Solar Project will be used as an offset to Petitioner's revenue requirements and returned to customers through the CECA.

E. Miscellaneous Terms. In the event an investment is made at a later date to either expand the Solar Project to increase production or add technological improvements *(e.g.,* battery storage or other investments to extend the life of the Solar Project beyond that which is contemplated in this Settlement Agreement), such investments will be excluded from the Settlement Agreement and included within Petitioner's rate base to be proposed for recovery in a future proceeding before the Commission.

Petitioner will provide quarterly reports documenting the status of the construction of the Solar Project, including actual costs incurred to date, projected costs through the end of construction of the Solar Project, and anticipated completion (in-service) date of the Solar Project. In addition, Petitioner will notify the Commission and the Settling Parties within 60 days of the in-service date of the Solar Project. Petitioner also will include with its annual CECA filings, the following information relating to the Solar Project: (a) generation output of the Solar Project (with monthly detail); (b) the actual revenue requirement during the 12 months covered by the report based upon the Levelized Rate per kWh and the estimated Production for the 12 month period; (c) the actual production of the Solar Project compared to the Baseline Production; (d) the total RECs

proceeds (in U.S. dollars), if any, associated with solar generation at the Solar Project; and (e) the average annual billing impact on all customer classes.

8. Testimony Relating to the Settlement Agreement.

A. Petitioner's Supporting Testimony. Petitioner's witness Swiz testified that the terms set forth in the Settlement Agreement are supported by and consistent with the evidence submitted by the Settling Parties in this proceeding. Mr. Swiz noted that Petitioner provided substantial evidence to support a Commission finding that granting a CPCN for the construction of the Solar Project is in the public interest. Petitioner also supported the estimated cost of the Solar Project as well as the status of the project as a "clean energy project." Mr. Swiz noted that CAC likewise supported the Commission's granting a CPCN for the Solar Project as proposed in Petitioner's case-in-chief. However, Mr. Swiz stated that OUCC witness Haselden was opposed to the Solar Project largely because he believed the cost to customers for energy produced by the project was too high in comparison to prices that might be negotiated under a PPA.

Mr. Swiz stated that based on the special nature of the Solar Project, including the availability of the ITC to offset project costs, the Settling Parties recognized that it presented a unique opportunity to evaluate alternative approaches to traditional ratemaking that would not be applicable to other CPCN projects, including any future expansions of the Solar Project.

Mr. Swiz stated that the Levelized Rate approach agreed upon in the Settlement Agreement results in a lower cost for customers than as proposed in Petitioner's case-in-chief. The average cost of the Solar Project as set forth in Petitioner's case-in-chief was approximately 7.1 cents per kWh over the life of the asset. Mr. Swiz noted that the Levelized Rate is slightly lower than the rate Mr. Haselden calculated using a discounted cash flow analysis in his direct testimony *(i.e.,* approximately 5.5 cents per kWh). Mr. Swiz described the circumstances under which the Levelized Rate could be adjusted. The adjustments are designed to ensure customers benefit from changes that might reduce the Levelized Rate - or in the alternative, that Petitioner is not unfairly burdened by such changes *(i.e.,* an increase in State or Federal Income Tax Rates). Mr. Swiz concluded that the Levelized Rate approach reduces the overall impact of the Solar Project on customer rates, while still making it feasible from Petitioner's perspective. In Mr. Swiz's opinion, the approach represents a reasonable compromise between Petitioner's and the OUCC's respective positions in this proceeding.

Mr. Swiz stated that the Levelized Rate will be incorporated into the CECA mechanism, which the Commission approved in Cause No. 44909 for renewable energy projects. Mr. Swiz described the manner in which the CECA will be calculated. The Solar Project component of the CECA will be derived by multiplying the then effective Levelized Rate per kWh, by the projected kWh produced by the Solar Project during the upcoming 12 month period, grossed up for Indiana Utility Receipts Tax ("IURT").

Mr. Swiz stated that in his opinion the Settlement Agreement is in the public interest. Mr. Swiz stated that Petitioner engaged in good faith negotiations with the OUCC and CAC to resolve the issues in this proceeding. Mr. Swiz testified that the result is a Settlement Agreement that is

good for customers and will allow Petitioner to recover its prudently incurred costs associated with the Solar Project.

Petitioner's witness Bailey testified that the Settlement Agreement provides that RECs obtained by Petitioner for energy produced by the Solar Project will be utilized by Petitioner in the best interest of its customers. The Settling Parties agreed this could include retaining the RECs or, after consultation with the OUCC and CAC, selling some amount of RECs to specific customers or to the REC market. Mr. Bailey stated that the net proceeds resulting from the sale of RECs will be used as an offset to revenue requirements and returned to customers through the CECA. Mr. Bailey testified that the Settlement Agreement gives Petitioner latitude with regard to the use of RECs in order to ensure that they are used in the best interest of customers and promotes collaboration among the Settling Parties with respect to that issue. In general, Mr. Bailey stated it is Petitioner's intention that RECs be available for use by local industries interested in purchasing "green power." If, however, there is not sufficient local demand for the RECs in the future, Mr. Bailey stated that Petitioner will explore selling them on the market after consulting with the OUCC and CAC. Mr. Bailey stated that revenues from such sales would be used to reduce customer costs.

Mr. Bailey stated that the Settlement Agreement provides that if a specific customer elects to pay directly for energy and/or RECs produced by the Solar Project, Petitioner will sell this energy and the corresponding RECs at a rate equal to the Levelized Rate, pursuant to a specific contract or rate approved by the Commission. However, Mr. Bailey stated that each of the Settling Parties reserves the right to recommend a different rate for Commission approval. All proceeds from contracts for the sale of energy and/or RECs produced by the Solar Project will be used as an offset to Petitioner's revenue requirements and returned to customers through the CECA.

Mr. Bailey stated that the Settlement Agreement provides Petitioner with the ability to sell energy and/or RECs generated by the Solar Project at an attractive rate. Mr. Bailey noted that some of Petitioner's customers have published global initiatives, which include investment in dedicated renewable resources as part of meeting renewable energy goals by a specific target date. Mr. Bailey stated that Petitioner also has had site selectors inquire as part of their Request for Information ("RFI") process whether Petitioner has solar assets and is willing to allow a prospective customer to enter into an agreement to purchase renewable energy generated by those assets. In Mr. Bailey's opinion, the terms of the Settlement Agreement allow Petitioner to be responsive to the needs of both existing customers and prospective customers while promoting collaboration among the Settling Parties with respect to the sale of RECs.

Mr. Bailey stated that customers large and small support the addition of renewable resources to Petitioner's generation portfolio. Mr. Bailey stated that the Solar Project provides Petitioner's large customers with the green power they need to reach their renewable energy goals without forcing them to take on the long term operation and maintenance expense of building their own on-site renewable energy generation or seeking some other off-system arrangement. Mr. Bailey testified that the Solar Project provides Petitioner's residential customers with the green power they want in their utility's portfolio without paying any upfront fees.

B. The OUCC's Supporting Testimony. OUCC witness Cynthia M. Armstrong testified that the OUCC believes the Settlement Agreement is in the public interest for the following reasons:

1) The levelized rate set forth in the Settlement Agreement alleviates the OUCC's concerns regarding the rate impact of the project. By agreeing to a levelized rate of $0.05452 per kWh, the rate that ratepayers will pay for the project will be significantly less than Petitioner's original proposal. The Settlement Agreement also mitigates the rate impact of the project on ratepayers, as the price charged to ratepayers will be fixed, with the exception of any changes of the ROE during a base rate case or changes in tax rates.
2) The Settlement Agreement offers ratepayer protection from increases in project construction or O&M costs over the 35 year time period. If Petitioner spends more than the planned $76.174 million in capital costs, or if O&M costs increase above the assumed amount, Petitioner will still only collect the levelized cost to which it has agreed.
3) The Settlement Agreement provides further ratepayer protection by ensuring the Solar Facility will meet performance requirements. If the facility fails to generate energy at the Baseline Production rate according to the requirements set forth in the Settlement Agreement, then Petitioner must credit ratepayers for this shortfall.
4) The Settlement Agreement allows ratepayers to receive the benefit of any liquidated damages Petitioner receives from First Solar for failing to meet the minimum guaranteed capacity of the Solar Facility.
5) The Settlement Agreement allows ratepayers to receive tax benefits of the project earlier than what would be experienced through traditional rate making.
6) Ratepayers will receive the full benefit of any solar RECs sold from the facility via a credit to the CECA. Additionally, Petitioner will seek agreement from the OUCC and CAC prior to selling the RECs. The OUCC can address any issues regarding claims of renewable energy provided to customers at the time of such discussions. Therefore, the OUCC's initial concern about Petitioner making claims regarding the renewable energy it provides its customers is resolved.
7) If Petitioner executes a special contract with a large customer wishing to purchase renewable energy from the facility to meet sustainability goals, ratepayers will receive the full benefit of those sales via a credit to the CECA.
8) As a least-cost and must-run unit, the project has the potential to result in fuel cost savings for customers.
9) The Settlement Agreement accomplishes the shared goals of the Settling Parties to provide Petitioner's customers with reasonably-priced local renewable energy.
10) Public policy supports the Settlement. By collaborating to resolve the issues in this proceeding, the Settling Parties' Agreement also serves the public

> interest by avoiding contentious and costly litigation. Each Settling Party is invested in the development, operation and evaluation process of the entire project and all parties, including the Commission, are able to stay on top of all issues with detailed information obtained through the ongoing review requirements. Given the agreement reached on the ratepayer benefits as outlined in the Settlement Agreement, the OUCC believes the Settling Parties struck a fair resolution of the divergent positions initially taken by the Settling Parties. The OUCC therefore believes the Settlement Agreement is supported by substantial evidence, is in the public interest and should be approved.

For the foregoing reasons, Ms. Armstrong recommended that the Commission approve the Settlement Agreement in its entirety.

C. Alliance Coal's Testimony in Opposition to the Settlement Agreement. Alliance Coal witness Griffey testified while the Settlement Agreement does decrease the excessive cost on ratepayers that Petitioner originally proposed, the Settling Parties failed to address all of the critical issues. Mr. Griffey also testified that "as I demonstrated in my Direct Testimony, Petitioner has not demonstrated a need for the Solar Project, and neither do the Settling Parties present any such evidence." Mr. Griffey also criticized Petitioner for not reviewing the economics of completing the Solar Project in 2023 instead of 2019 or 2020.

Mr. Griffey also criticized the OUCC because the only OUCC witness providing testimony in support of the Settlement Agreement was Ms. Armstrong and she did not address the issues brought up in Mr. Haselden's testimony. Specifically, Mr. Griffey noted that Ms. Armstrong had not addressed Mr. Haselden's criticisms that the Solar Project was unnecessary for capacity or reserve margin requirements to serve Petitioner's customers and provides only a de minimis impact on diversification.

Mr. Griffey also testified that the Solar Project as proposed by Petitioner would lose millions of dollars per year during 20[19]-2023 under any of the net present value scenarios evaluated. Mr. Griffey noted that the cost agreed upon in the settlement lowers that loss somewhat, but the loss is still millions of dollars annually.

Mr. Griffey testified that a prudent utility would have evaluated whether beginning development in 2019 with a plan for continuous construction with a completion date in 2023 (thereby qualifying for the full 30% ITC) would have been a more economic course of action.

Mr. Griffey recommended the CPCN be denied. Alternatively, Mr. Griffey recommended Petitioner be ordered to track the cost of the Solar Project compared to the avoided cost of power each year through 2023. Mr. Griffey recommended that any excess cost of the Solar Project over avoided cost through 2023 should not be allowed to be charged to ratepayers.

D. Petitioner's Rebuttal Testimony in Support of the Settlement Agreement. Petitioner's witness Games testified that Mr. Griffey ignores the evidence presented in this proceeding regarding the importance of incorporating diverse resources in Petitioner's

generation portfolio, as well as the ratemaking benefits to customers the Settling Parties have achieved through the Settlement Agreement. Mr. Games stated in both direct testimony and rebuttal testimony that Petitioner provided substantial evidence that the Solar Project is an important step in diversifying its generation resources. In entering into the Settlement Agreement, Mr. Games stated that the OUCC recognized the importance of diversifying Petitioner's generation portfolio through the addition of a renewable resource. Mr. Games noted that Mr. Griffey's testimony continues to be devoid of any challenge to the evidence regarding the importance of diversification of generation resources.

Mr. Games testified that fuel diversity helps protect electric utilities and customers from contingencies such as fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel *(e.g.,* environmental regulations). Mr. Games stated that fuel diversity also can help ensure stability and reliability of electricity supply. For these reasons, Mr. Games stated that the addition of 50 MW of solar generation was part of Petitioner's preferred portfolio in its 2016 IRP and in its 2017 base case update. Mr. Games stated that Mr. Griffey also ignores the testimony of witness Thomas L. Bailey regarding the increasing importance of local renewable resources as part of a utility's generation portfolio to both existing and potential large customers with internal renewable energy targets.

Mr. Games stated that Petitioner did review the economics or risk of completing a Solar Project in 2023 instead of 2019 or 2020. Mr. Games testified that Petitioner evaluated the potential decline in solar capital costs as compared to the benefit of the ITC in connection with the preparation of its IRP and determined that it would be beneficial to commence construction in 2019. In its 2016 IRP, Petitioner estimated the average decline in solar capital costs would be 2.7% per year through 2036 (base year 2016). At this average rate, Petitioner would have to wait 13 years to realize the same benefit of a dollar-for-dollar 30% deduction from federal taxes that is available if construction of the Solar Project begins in 2019.

Mr. Games stated that it would not be feasible to begin development of the Solar Project in 2019 with a planned completion date in 2023. Mr. Games stated that to the extent any reputable EPC contractor would be willing to tie up its labor, equipment or material resources for a period of four years to construct a single 50 MW solar facility, he would expect such a concession to come with a price. Mr. Games noted that one of the primary reasons larger solar jobs can be accomplished at a reduced price per kW is the productivity gains by keeping equipment and consistent labor on the job until complete. To that end, Mr. Games noted that the EPC Agreement with First Solar contains specific construction milestone dates and payments are due when each of those milestones is met.

Mr. Games testified that Petitioner disagreed with Mr. Griffey's calculation of net present value losses. Mr. Games stated that Petitioner in rebuttal cited a number of reasons why Mr. Griffey's approach to analyzing the Solar Project is not appropriate - none of which are responded to in Mr. Griffey's supplemental testimony. Mr. Games stated that the Solar Project is appropriately evaluated for what it is - one component of Petitioner's generation portfolio, the mix of which is guided by Petitioner's IRP process. However, Mr. Games noted that even assuming that Mr. Griffey's calculation is correct, his own workpaper shows the trend will reverse itself by the eighth year of operation *(i.e.,* 2028) in his third scenario and by the ninth year of operation *(i.e.,*

2029) in his second scenario. Thereafter, the Solar Project would have a positive return that grows over the course of 22 years and 21 years, respectively *(i.e.,* through 2049). Consequently, over the course of a 30-year life, the Solar Project would have a positive net present value ("NPV") (net benefit) of $13,301,731 under Mr. Griffey's second analysis and $12,893,863 under Mr. Griffey's third analysis. In addition, Mr. Games noted that Mr. Griffey's analysis fails to capture the fact that the Settling Parties agreed to a 35-year life. Mr. Games stated that extending Mr. Griffey's analysis over an additional 5-year period would only increase the beneficial NPV in his two scenarios - $20,720,959 for the second, and $18,228,636 for the third.

With respect to Mr. Griffey's recommendation that Petitioner be ordered to track the cost of the Solar Project compared to the avoided cost of power each year through 2023 and that any "excess of the cost of the Solar Project over avoided cost through 2023 should not be allowed to be charged to ratepayers," Mr. Games responded that none of Petitioner's generation assets should be looked at or tracked on an isolated basis. Mr. Games stated that a utility must consider all of its generation assets and then determine the optimal mix of generation assets to meet its long-term needs. Mr. Games noted that using this approach, some of Petitioner's remaining coal assets would be the biggest NPV losers - and, unlike the Solar Project, those assets are unlikely to result in a positive NPV in the near future or over the remainder of their lives.

E. OUCC's Rebuttal Testimony in Support of the Settlement Agreement. OUCC witness Armstrong testified that the OUCC believes that the Settlement Agreement appropriately resolves the issues the OUCC previously raised in its direct testimony, and that the requirements set forth in the Settlement Agreement justify approving the proposed settlement and issuing Petitioner's requested CPCN for the Solar Project. In responding to Mr. Griffey's criticism of the Settlement Agreement and its inconsistency with the OUCC's direct testimony, Ms. Armstrong first testified that any settlement involves give and take from all settling parties, and that it is possible for settling parties to continue to disagree on certain principles and positions raised in litigation, yet craft and support a beneficial settlement agreement that resolves the parties' major concerns. She stated that while the OUCC may not fully agree with all of Petitioner's assertions in its Case-in-Chief and Rebuttal testimony, the Settlement Agreement allows the settling parties to agree on an acceptable middle ground that provides Petitioner with the necessary approvals to construct the Solar Project.

Ms. Armstrong next testified that while the OUCC objected to the reasonableness of the cost of the facility in its direct testimony, the Settlement Agreement addresses this concern by structuring recovery so that the levelized cost charged to ratepayers is more consistent with current solar power prices, and effectively caps the amount Petitioner can charge ratepayers to recover project costs.

Third, Ms. Armstrong stated that Petitioner included plans to construct a 50 MW solar facility in its short term action plan in its 2016 IRP. She testified that although OUCC Witness Haselden stated that the model was forced to select 50 MW of solar in 2019 and that this was not an optimal economic selection over other resource options, the OUCC was willing to set aside its position regarding the modeling of solar resources in exchange for all of the consumer protections and public benefits Ms. Armstrong previously discussed in her Settlement Testimony. She further noted that Mr. Haselden acknowledged in his direct testimony that installing 50 MW of solar was

a better choice than 9 MW of solar, due to the economies of scale in pricing. Ms. Armstrong stated that constructing the 50 MW solar facility now instead of at a later date allows Petitioner to take full advantage of the ITC, plus, the Settlement Agreement is structured to allow Petitioner to pass along the benefits of the ITC to its customers sooner. Ms. Armstrong also noted that the action of the OUCC in settling this case should not be interpreted as agreement with all of the modeling inputs or associated outputs of Petitioner's 2016 IRP, nor does it change positions taken by the OUCC in Cause No. 45052.

Finally, Ms. Armstrong stated that cost is not the only factor the OUCC considers in its analysis of a request for a CPCN. In the case of renewable projects, Ms. Armstrong stated the OUCC has supported, and the Commission has approved, projects that were not always the least cost available option. She explained that many ratepayers express their interest in utilities obtaining more renewable resources and diversifying their generation portfolios. Ms. Armstrong stated there may also be additional economic development opportunities with developing renewable projects within the state. Additionally, Ms. Armstrong stated that including more low- or zero-emitting resources in a utility's portfolio may mitigate the cost impact of future environmental requirements. Ms. Armstrong concluded that each of these factors supports approval of the Solar Project.

Ms. Armstrong further stated that the OUCC's main objections to the Solar Project revolved around its cost, when compared to the cost of new solar facilities being built today. Ms. Armstrong stated, the OUCC believes the Settlement Agreement effectively resolves this issue by lowering the levelized cost of the project, mitigating the rate impact of the project on customers, and limiting the construction costs Petitioner is permitted to recover from ratepayers.

9. <u>Discussion and Findings</u>.

A. Consideration of Settlement Agreements. In various Orders of the Commission in other proceedings, we previously have discussed our policy with respect to settlements:

> Indiana law strongly favors settlement as a means of resolving contested proceedings. *See, e.g., Manns v. State Department of Highways*, (1989), Ind., 541 N.E.2d 929, 932; *Klebes v. Forest Lake Corp.*, (1993), Ind. App. 607 N.E.2d 978, 982; *Harding v. State*, (1992), Ind. App., 603 N.E.2d 176, 179. A settlement agreement "may be adopted as a resolution on the merits if [the Commission] makes an independent finding, supported by substantial evidence on the record as a whole, that the proposal will establish 'just and reasonable' rates." *Mobil Oil Corp. v. FPC*, (1974), 417 U.S. 283, 314.

Indianapolis Power & Light Co., Cause No. 39936, p. 7 (IURC 9/24/95); *see also Commission Investigation of Northern Ind. Pub. Serv. Co.*, Cause No. 41746, p. 23 (IURC 9/23/02). This policy is consistent with expressions to the same effect by the Supreme Court of Indiana. *See, e.g., Mendenhall v. Skinner & Broadbent Co.*, 728 N.E.2d 140, 145 (Ind. 2000) ("The policy of the law generally is to discourage litigation and encourage negotiation and settlement of disputes"); *In re Assignment of Courtrooms, Judge's Offices and Other Facilities of St. Joseph Superior Court*, 715

N.E.2d 372, 376 (Ind. 1999) ("Without question, state judicial policy strongly favors settlement of disputes over litigation").

Nevertheless, pursuant to the Commission's procedural rules, and prior determinations by this Commission, a settlement agreement will not be approved by the Commission unless it is supported by probative evidence. 170 IAC 1-1.1-17. Settlements presented to the Commission are not ordinary contracts between private parties. *United States Gypsum, Inc. v. Indiana Gas Co.*, 735 N.E.2d 790, 803 (Ind. 2000). Any settlement agreement approved by the Commission "loses its status as a strictly private contract and takes on a public interest gloss." *Id.* (quoting *Citizens Action Coalition v. PSI Energy, Inc.*, 664 N.E.2d 401, 406 (Ind. Ct. App. 1996)). Thus, the Commission "may not accept a settlement merely because the private parties are satisfied; rather [the Commission] must consider whether the public interest will be served by accepting the settlement." *Citizens Action Coalition*, 664 N.E.2d at 406. Furthermore, a Commission decision, ruling or order must be supported by specific findings of fact and sufficient evidence. *United States Gypsum*, 735 N.E.2d at 795 (citing *Citizens Action Coalition v. Public Service Co.*, 582 N.E.2d 330, 331 (Ind. 1991)). Therefore, before the Commission can approve the Settlement Agreement, we must determine whether the evidence in this Cause sufficiently supports the conclusion that the Settlement Agreement is reasonable, just, and consistent with the purpose of the governing statutory provisions, and that such agreement serves the public interest.

In this case, the Commission has before it a large body of evidence with which to judge the reasonableness of the terms of the Settlement Agreement, including the Settling Parties' agreement that the Commission should grant Petitioner a CPCN pursuant to Ind. Code ch. 8-1-8.5, to construct the Solar Project. We are also mindful that settlements represent the product of negotiations, and modifications to the terms can result in nullification of the entire settlement.

As we will discuss below, the record includes substantial evidence supporting each element of the CPCN statute. Moreover, the evidence of record supports the Settling Parties' agreement that the Solar Project is a "clean energy project" under Ind. Code § 8-1-8.8-11 and the resulting ratemaking terms.

Alliance Coal objects to the Settlement Agreement based on its view that Petitioner does not need to add solar generation resources and that building the Solar Project does not result in the lowest reasonable cost of power for customers; rather in Alliance Coal's view, it would be more economic to defer any addition of solar power to at least 2023. We will address the issues raised by Alliance Coal in our discussion below.

B. CPCN Request under Ind. Code ch. 8-1-8.5. Indiana Code § 8-1-8.5-2 states that a public utility must obtain a CPCN from the Commission prior to constructing, purchasing, or leasing a facility for the generation of electricity. In the Settlement Agreement, the Settling Parties agree Petitioner should be granted a CPCN under Ind. Code ch. 8-1-8.5 to construct the proposed 50 MW Solar Project. We review each of the factors set forth in Ind. Code ch. 8-1-8.5 that the Commission must consider before granting a CPCN in the discussion below.

1. Best Estimate of Cost. Pursuant to Ind. Code § 8-1-8.5-5(b)(1), a CPCN may be granted only if the Commission makes a finding "as to the best estimate of construction, purchase, or lease costs based on the evidence of record."

In the Settlement Agreement, the "Settling Parties agree[d] Vectren South's construction cost estimate for the Solar Project of $76.174 million, including a contingency, exclusive of AFUDC and post-in-service carrying costs, constitutes a reasonable estimate of the construction costs for the Solar Project and should be approved by the Commission in accordance with Ind. Code § 8-1-8.5-5." Petitioner's witness Games testified that the vast majority of the project cost is fixed pursuant to the terms of those agreements. Petitioner's witness Brinkman provided an analysis of the reasonableness of each component of the cost of the Solar Project incorporated into the EPC Agreement, including the cost of the modules. Mr. Brinkman concluded that the cost of the Solar Project is consistent with, if not lower than, market conditions for a utility scale solar project using union labor in Indiana.

Based on the evidence of record, we find that Petitioner has provided sufficient evidence to support its estimate of construction costs for the Solar Project, consistent with CPCN statutory requirements, and the cost is reasonable for a project of this nature and scope.

2. Inclusion in Petitioner's 2016 IRP. Indiana Code § 8-1-8.5-3 provides that a public utility may be required to file with the Commission, "a current or updated Integrated Resource Plan as part of a utility specific proposal to the future needs for electricity to serve the people of the state or the area served by the utility." Under Ind. Code § 8-1-8.5-5(b)(2), a CPCN shall be granted only if the Commission has made a finding that either:

> (A) the construction, purchase, or lease will be consistent with the commission's analysis (or such part of the analysis as may then be developed, if any) for expansion of electric generating capacity; or
>
> (B) the construction, purchase, or lease is consistent with a utility specific proposal submitted under section 3(e)(1) of this chapter. . . .

Petitioner's witness Games sponsored Petitioner's 2016 IRP as Petitioner's Exhibit No. 1, Attachment WDG-4. The Preferred Portfolio Plan in Petitioner's 2016 IRP, and the more recent update thereto, includes the addition of 50 MW of solar-powered generation in 2019. The 2016 IRP indicates that "Vectren plans to add 50 MW of solar in 2019, which corresponds with clean energy tax incentives for solar power plants." See Petitioner's Exhibit No. 1, Attachment WDG-4 at 47. The 2016 IRP notes that 2019 is the "last year to commence construction and receive the full 30% benefit (it tapers down from there)." *Id.* at 62. Accordingly, we find Petitioner's proposed 50 MW Solar Project is consistent with Petitioner's 2016 IRP.

In opposing the Settlement Agreement, Alliance Coal witness Griffey suggests it would be "more economic to defer any addition of solar power to at least 2023, and Vectren South never evaluated such a scenario in either its IRP or now." Mr. Griffey's contention regarding the IRP, however, is refuted by the language of the IRP relating to the need to commence construction in time to take advantage of the 30% ITC. Petitioner witness Hubbard further explained: "In its 2016 IRP, Vectren South estimated the average decline in solar capital costs would be 2.7% per year

through 2036 (base year 2016). At this average rate, Vectren South would have to wait 13 years to realize the same benefit of a dollar-for-dollar 30% deduction from federal taxes that is available if construction on the Solar Project begins in 2019. Accordingly, Vectren South has evaluated the question of timing and determined that the sunsetting investment tax credit and the need for the region to remain relatively competitive and attractive to businesses with corporate environmental targets as nearly 2.7 GW of solar projects in Indiana alone move through the MISO Generator Interconnection Queue, among other reasons, are justification for not delaying implementation of the Solar Project." Therefore, we reject Alliance Coal's suggestion that delaying the addition of 50 MW of solar generation was not considered.

3. Public Convenience and Necessity. Pursuant to Ind. Code § 8-1-8.5-5(b)(3), before granting a CPCN, the Commission must make "a finding that the public convenience and necessity require or will require the construction, purchase, or lease of the facility." Alliance Coal's principal objection to the Settlement Agreement is that, in Mr. Griffey's opinion, "Vectren South has not demonstrated a need for the Solar Project." As further discussed below, Alliance Coal has improperly discounted the importance of diversification of generation resources, adding local renewable generation resources to a utility's portfolio and meeting customer desires with respect to the manner in which they want to be served.

The Solar Project was included in Petitioner's Preferred Portfolio Plan primarily as a means of adding diversity to Petitioner's generation portfolio and reducing risks. The Solar Project would add a new renewable energy resource to a portfolio that currently includes only minimal solar generation resources (4 MW). In addition to Petitioner's 4 MW of solar generation, Petitioner's current generation mix consists of approximately 1,000 MW of coal-fired generation, 245 MW of gas-fired generation (peaking units), 3 MW of landfill gas generation, PPAs totaling 80 MW from wind, and a 1.5% ownership share of Ohio Valley Electric Corporation ("OVEC"), which equates to 32 MW. The wind PPAs expire in 2028 and 2029 – at which point, Petitioner would have only de minimis renewable resources in its portfolio absent construction of the Solar Project. (Petitioner's Exh. 5 at 15-16.)

Ms. Armstrong's testimony regarding the importance of reasonably-priced renewable energy located in or near a utilities service territory is consistent with the express recognition in the Indiana statutory and regulatory scheme that the addition of renewable energy resources in the State is both beneficial and necessary. For example, Ind. Code § 8-1-8.8-11(a) states that: "The commission shall encourage clean energy projects [which includes solar energy projects] by creating ... financial incentives for clean energy projects, if the projects are found to be reasonable and necessary." Additionally, Ind. Code § 8-1-2.4-1 states: "It is the policy of this state to encourage the development of alternate energy production facilities [including solar facilities], cogeneration facilities, and small hydro facilities in order to conserve our finite and expensive energy resources and to provide for their most efficient utilization." Further, Ind. Code ch. 8-1-37 allows a utility to develop a clean energy resource portfolio (including solar energy resources), and to earn financial incentives if the utility meets its portfolio goals.

In addition to the foregoing statutory provisions, we previously have recognized the importance of fuel diversity generally, with respect to generation portfolios, and recognized the

benefits of local renewable solar resources, in particular. For example, in approving a long-term purchase of power by Duke Energy Indiana from a wind provider, we stated:

> Not only does the environment benefit from such emissions free electric generation but also Indiana benefits through the development of another "home grown" energy resource. The price volatility of foreign energy and carbon fuels and the historically increasing costs and stringency of environmental emissions compliance make the potential Indiana savings from reasonably-priced Indiana renewable energy sources more economically beneficial than ever before. In addition, as the record substantiates here, this renewable energy project offers the traditional economic benefits of local Indiana business investment, revenue generation, and job creation.

Verified Petition of PSI Energy, Inc. d/b/a Duke Energy Indiana, Inc. for Approval of a Renewable Wind Energy Project Purchased Power Agreement, Cause No. 43097 (IURC; Dec. 6, 2006) at 16-17. We made similar findings in approving Duke Energy Indiana's proposal to enter into a solar PPA. See, *Duke Energy Indiana, LLC*, Cause No. 44953 (IURC; November 21, 2017) at 9 ("The evidence shows the Staunton Solar project represents a reasonable addition to and diversification of Duke Energy's resource portfolio consistent with Petitioner's IRP. In addition, the price construct of the Solar PPA will provide an energy resource independent of fuel price volatility or increased emissions costs.")

Likewise, in *Indiana & Michigan Power Company*, Cause No. 44511 (IURC; February 4, 2015), we noted that "Chapter 8.5 reflects an integrated resource process which seeks to utilize a diversified portfolio of supply side and demand resources (e.g., coal, gas, nuclear, wind, solar, energy efficiency, load management)." In approving I&M's Clean Energy Solar Pilot Project we found: "While solar generation, as an intermittent energy resource, has certain operational challenges, it is a zero-carbon source of electricity that can further diversify I&M's generation portfolio, which now consists of coal, nuclear, wind and hydro generation." *Id.* at 8.

We have, in fact, emphasized the importance of fuel diversity in multiple proceedings. *See e.g., Verified Petition of Indianapolis Power & Light Company for Certificates of Public Convenience and Necessity,* Cause No. 44794 (IURC; April 26, 2017)("fleet fuel diversity mitigates risks"); *Joint Petition of PSI Energy, Inc. and CinCap VII for Issuance of Certificates of Public Convenience and Necessity,* Cause No. 42145 (IURC; Dec. 19, 2002)(the addition of gas-fired peaking capacity will benefit the system in terms of fuel diversity and mitigating future environmental regulation risk); *Wabash Valley Power Association for Issuance of* a *Certificate of Public Convenience and Necessity,* Cause No. 42321 (IURC; March 26, 2003) ("Landfill Units are an appropriate choice to meet Petitioner's need for additional generating capacity, which should enhance system integrity and reliability and provide Petitioner with increased fuel diversity.").

We continue to believe fuel diversity and the addition of local renewable resources is important to protect electric utilities and their customers from contingencies such as fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel *(e.g.,* environmental regulations). Fuel diversity also can help ensure stability and reliability of electricity supply and can strengthen national security. We would note that in 2011, the Indiana

General Assembly created a voluntary clean energy portfolio standard that set a target of producing 7% of the state utilities' electricity supply from clean energy sources by 2019, with the share increasing to 10% by 2025. Approval of the Solar Project allows Petitioner to get closer to the foregoing targets.

In addition to the benefits of fuel diversification, Petitioner presented substantial evidence that renewable resources are beneficial in efforts to retain and attract industrial and commercial customers seeking to meet renewable energy goals. Petitioner presented evidence that within its service territory alone, approximately twenty corporations have publicly created sustainability goals and/or support efforts taken by Petitioner to construct the Solar Project. Petitioner has had discussions with Toyota regarding Toyota potentially purchasing energy produced by the Solar Project and has entered into a letter of intent with AstraZeneca to enter into a contract for AstraZeneca to purchase power generated by the Solar Project. Petitioner also has had site selectors inquire as part of their RFI process whether the utility has solar assets and is willing to allow a prospective customer to enter into an agreement to purchase renewable energy generated by those assets. Petitioner's residential customers also have indicated that they want Petitioner to add renewable resources to its portfolio.

OUCC witness Armstrong provided testimony supporting Petitioner's testimony regarding the desires of customers. Ms. Armstrong noted that "many ratepayers express their interest in utilities obtaining more renewable resources and diversifying their generation portfolios." Ms. Armstrong stated: "[t]here may also be additional economic development opportunities with developing renewable projects within the state." (Public's Exh. 3 at 3.)

The Solar Project serves to diversify Petitioner's generation portfolio, provides additional local solar generation located in Indiana, encourages economic development and meets customers' increasing desire to have renewable energy options available to serve their needs. Based on the evidence of record, the Commission finds that the public convenience and necessity requires Petitioner's construction of the 50 MW Solar Project.

4. Consideration of Alternatives under Ind. Code § 8-1-8.5-4. The Commission is required under Ind. Code § 8-1-8.5-4 when acting on any Petition for a CPCN to take into account:

> (1) the applicant's current and potential arrangement with other electric utilities for:
> (A) the interchange of power;
> (B) the pooling of facilities;
> (C) the purchase of power; and
> (D) joint ownership of facilities; and
> (2) other methods for providing reliable, efficient, and economical electric service, including the refurbishment of existing facilities, conservation, load management, cogeneration and renewable energy sources.

The evidence regarding the alternatives enumerated at Ind. Code § 8-1-8.5-4 permits the Commission to make an informed decision as to whether a pending proposal is in the public interest. As we noted in *PSI Energy, Inc.,* Cause Nos. 41924 and 42145, "the statute does not

require a utility to exhaust all statutory alternatives before it may request a CPCN for new capacity." *PSI Energy, Inc.,* Cause No. 42145, at 14 (IURC Dec. 19, 2002). "Rather, what is important is that the Commission be given enough information so that the Commission can take into account all of the enumerated alternatives in making its determination." *Id.* "The statute does not limit the Commission's discretion to weigh the importance of each alternative in determining the public interest." *Id.*

In this case, Petitioner's 2016 IRP called for the addition of 50 MW of renewable solar capacity and as indicated in Petitioner's witness Games' rebuttal testimony it satisfied Ind. Code § 8-1-8.5-4 by considering either constructing a utility-owned solar facility, joint ownership of the facility with Orion or entering into a PPA for the purchase of solar power. Petitioner's intent was to add solar resources to its portfolio to diversify its generation resources and meet customer demands in accordance with the Preferred Portfolio Plan in Petitioner's 2016 IRP. Mr. Games noted that solar resources are complementary to existing wind resources as wind resources tend to provide more output during off-peak times, while solar resources provide the greatest output during peak times. The goal of adding solar resources could largely be obtained through either constructing a utility-owned solar facility or entering into a PPA for the purchase of solar power. To that end, Petitioner provided evidence that the Solar Project already had been initiated in Petitioner's service territory by Orion. Prior to Petitioner becoming involved in the Solar Project, Orion had leased approximately 300 acres of farmland in Spencer County from multiple property owners, began acquiring assets and rights necessary to construct the facility on the property and secured local tax benefits for the Solar Project through the designation of the area as an Economic Revitalization Area. Petitioner's witness Games testified that the project being undertaken by Orion had all of the attributes important to Petitioner: (i) the Solar Project was being built at a location connected to Petitioner's system; (ii) the project will not be burdened by large grid infrastructure costs or congestion issues to serve Petitioner load; (iii) the size of the Solar Project is consistent with and supported by Petitioner's IRP risk modeling; and (iv) the Solar Project was being constructed in accordance with the timeline set forth in Petitioner's IRP.

Nonetheless, Petitioner also presented testimony on other alternatives it considered for the addition of renewable resources. Mr. Games testified that Petitioner had been exploring options for adding solar resources prior to being approached by Orion, but had determined it would be challenging to find a location near a substation that could both accept the energy with minimum upgrades and had landowners that could all agree to either lease or sell the necessary property for a project this size. Petitioner's witness Joiner provided extensive testimony regarding the benefits of owning a renewable generation asset as opposed to entering into a PPA. Mr. Joiner noted that renewable PPAs typically include take or pay provisions that require the purchaser to pay for the production from the renewable generator regardless of financial or market conditions. Mr. Joiner also described the importance to Petitioner of avoiding congestion issues that are associated with purchasing power from a plant located far from the load it serves.

Mr. Games testified that Petitioner also considered other options with respect to the Orion project, including entering into a PPA for energy produced at the site or potentially partnering with Orion to jointly own the project. However, Petitioner did not consider either of those options to be in the best interest of customers.

We agree that the Levelized Rate agreed upon in settlement significantly reduced the rate per kWh Petitioner proposed in its case-in-chief to a level reflective of current solar prices. We therefore find that the Settling Parties appropriately considered other options for the addition of renewable resources, negotiating a rate per kWh in settlement comparable to what Petitioner would pay under a PPA. That result supports our finding that the proposed Settlement Agreement satisfies Ind. Code § 8-1-8.5-4.

5. Ongoing Review. Indiana Code § 8-1-8.5-6(a) provides:

> In addition to the review of the continuing need for the facility under construction ... the Commission shall, at the request of the public utility, maintain an ongoing review of such construction as it proceeds. The applicant shall submit each year during construction or at such other periods as the Commission and the public utility mutually agree, a progress report and any revisions in the cost estimates for the construction.

The Settlement Agreement provides for ongoing review of the Solar Project. Specifically, Petitioner agrees to provide quarterly reports documenting the status of the construction of the Solar Project, including actual costs incurred to date, projected costs through the end of construction of the Solar Project, and anticipated completion (in-service) date of the Solar Project. In addition, Petitioner will notify the Commission and the Settling Parties within 60 days of the in-service date of the Solar Project.

After the Solar Project is completed, Petitioner also agreed to provide additional information regarding the Solar Project, including (a) generation output of the Solar Project (with monthly detail); (b) the actual revenue requirement during the 12 months covered by the report based upon the Levelized Rate per kWh and the estimated Production for the 12 month period; (c) the actual production of the Solar Project compared to the Baseline Production; (d) the total RECs proceeds (in U.S. dollars), if any, associated with solar generation at the Solar Project; and (e) the average annual billing impact on all customer classes.

We find the Settling Parties' agreements with respect to the reports to be filed reasonable and in the public interest. The agreed upon reports will provide transparency regarding the progress of construction of the Solar Project and the cost of electricity generated by the Solar Project.

C. Approval of Solar Project under Ind. Code ch. 8-1-8.8. Indiana Code § 8-1-8.8-11 provides that "[a]n eligible business must file an application to the commission for approval of a clean energy project" and that "[t]he commission shall encourage clean energy projects by creating [certain] financial incentives for clean energy projects, if the projects are found to be reasonable and necessary." In addition, "solar energy" is specifically listed as one of the clean energy resources in Ind. Code § 8-l-37-4(a)(l) through Ind. Code § 8-l-37-4(a)(l6), thus making it a "renewable energy resource" under Ind. Code § 8-1-8.8-10.

The Settling Parties agreed that the proposed Solar Project meets the requirements of a clean energy project. We agree and therefore find that the Solar Project meets the definition of a "clean energy project" and is eligible for financial incentives.

According to Ind. Code § 8-1-8.8-11, the Commission shall encourage clean energy projects by creating financial incentives for such projects, if found to be reasonable and necessary. In the Settlement Agreement, the Settling Parties agreed upon certain ratemaking terms with respect to the Solar Project that are consistent with Ind. Code § 8-1-8.8-11 and also deliver benefits to customers.

The Settling Parties' principal agreement is that a Levelized Rate of $0.05452 per kWh will be used to determine the amount recovered annually in the CECA mechanism for the Solar Project. The Levelized Rate may be adjusted only under limited circumstances, such as: (i) to capture the impact of changes to the approved ROE; (ii) if any legislated adjustment is made to the statutory Indiana State and/or Federal Income Tax Rates that results in a change to other approved tariff rates; or (iii) if Petitioner receives any liquidated damages from First Solar for failing to achieve the minimum guaranteed capacity or guaranteed capacity established in the EPC Agreement. Finally, if the facility fails to generate energy at the Baseline Production rate according to the requirements set forth in the Settlement Agreement, then Petitioner must credit ratepayers for this shortfall (conversely ratepayers may be charged for production in excess of the Baseline Production).

The Levelized Rate will be incorporated into the CECA mechanism, which the Commission approved on August 16, 2017 in Cause No. 44909 for renewable energy projects. Upon Commission approval of an Order in this proceeding, the CECA will be used to recover: (a) the revenue requirement associated with the three solar energy projects totaling approximately 4.3 MWac and two energy storage systems approved in Cause No. 44909; and (b) the approved revenue requirement for the Solar Project. The Solar Project component of the CECA will be derived by multiplying the then effective Levelized Rate per kWh, by the projected kWh produced by the Solar Project during the upcoming twelve (12) month period, grossed up for IURT. [1]

The Levelized Rate agreed upon in the Settlement Agreement is significantly lower than Petitioner's original estimated rate of $0.071 per kWh. Moreover, the Levelized Rate approach agreed upon in the Settlement Agreement provides certain additional protections for customers. Ms. Armstrong noted that if Petitioner spends more than the planned $76.174 million in capital costs, or if O&M costs increase above the assumed amount, Petitioner will still only collect the levelized cost to which it has agreed. In addition, Ms. Armstrong noted that the Levelized Rate allows ratepayers to receive tax benefits of the project earlier than what would be experienced through traditional ratemaking. Ms. Armstrong stated:

> [T]he OUCC's main objections to the Solar Project revolved around its cost, when compared to the cost of new solar facilities being built today. As mentioned in my Settlement Testimony, the OUCC believes that the Settlement Agreement effectively resolves this issue by lowering the levelized cost of the project, mitigating the rate impact of the project on customers, and limiting the construction costs Vectren is permitted to recover from ratepayers.

[1] The Levelized Rate terms in the Settlement Agreement do not apply to an investment made at a later date to either expand the Solar Project to increase production or add technological improvements *(e.g.,* battery storage or other investments to extend the life of the Solar Project beyond that which is contemplated in this Settlement Agreement).

Public's Exhibit No. 1R. Alliance Coal did not object to any specific ratemaking terms of the Settlement Agreement. Rather, Alliance Coal contends the cost of the Solar Project remains too high because it would "lose millions of dollars per year during [2019]-2023" if it were operated as a merchant generation unit. (Alliance Coal Exh. 2 at 4.) We note that the levelized cost approach agreed upon in settlement significantly reduced the rate per kWh Petitioner proposed in its case-in-chief to a level reflective of current solar prices. In fact, Mr. Griffey's workpapers show that in the eighth year of operation *(i.e.,* 2028) in his third scenario and by the ninth year of operation *(i.e.,* 2029) in his second scenario, the Solar Project would have a positive return that grows over the course of 22 years and 21 years, respectively *(i.e.,* through 2049) based on the use of the levelized cost approach. CAC witness Olson noted that the cost per MW of the Solar Project, even as proposed in Petitioner's case-in-chief was lower than the solar projects approved by the Commission for Duke Energy Indiana in Cause No. 44511 and I&M in Cause No. 44734.

The Commission finds the terms of the Settlement Agreement allow Petitioner to recover its prudently incurred costs associated with the Solar Project, while providing related benefits and protections for customers. Based on the foregoing, we find the ratemaking terms set forth in the Settlement Agreement are reasonable and in the public interest.

D. Other Terms of the Settlement Agreement. The Settlement Agreement provides that any RECs obtained by Petitioner for energy produced by the Solar Project will be utilized by Petitioner in the best interest of its customers. The Settling Parties agree this could include retaining the RECs or, after consultation with the OUCC and CAC, selling some amount of RECs to specific customers or to the REC market. The net proceeds resulting from the sale of RECs will be used as an offset to revenue requirements and returned to customers through the CECA.

With respect to large customer contracts, the Settlement Agreement provides that if a specific customer elects to pay directly for energy produced by the Solar Project, Petitioner will sell this energy and the corresponding RECs at a rate equal to the Levelized Rate per kWh, pursuant to a specific contract or rate approved by the Commission; provided, however, that each of the Settling Parties reserves the right to recommend a different rate for Commission approval. All proceeds from the sale of energy produced by the Solar Project will be credited to the CECA.

Accordingly, under the terms of the Settlement Agreement, ratepayers will receive the full benefit of any solar RECs sold from the facility via a credit to the CECA. In addition, ratepayers will receive the full benefit of sales to large customers via a credit to the CECA. Ms. Armstrong further testified that the OUCC's initial concern about Petitioner making claims regarding the renewable energy it provides its customers is resolved by the Settlement Agreement as the OUCC can address any issues regarding claims of renewable energy provided to customers at the time of the discussions among the Settling Parties required under the Settlement Agreement. We find both of these provisions to be reasonable and in the public interest.

E. Conclusion. Based on the evidence presented, we find that the Settlement Agreement is just, reasonable, and in the public interest, and it should be approved in its entirety, without change.

The Settling Parties agree that the Settlement Agreement should not be used as precedent in any other proceeding or for any other purpose, except to the extent necessary to implement or enforce its terms. Consequently, with regard to future citation of the Settlement Agreement, we find our approval herein should be construed in a manner consistent with our finding in *Richmond Power & Light,* Cause No. 40434, 1997 Ind. PUC LEXIS 459 at *19-22 (IURC March 19, 1997).

10. Confidentiality. On May 4, 2018, Petitioner filed a motion for protection and nondisclosure of confidential and proprietary information. In the motion and supporting affidavit, Petitioner demonstrated a need for confidential treatment for the detailed cost estimates for its Solar Project. On May 17, 2018, the Presiding Officers preliminarily determined such information is subject to confidential procedures. Following entry of the May 17, 2018 Docket Entry, Petitioner learned the total cost of the Solar Project already was in the public domain. Therefore, the parties offered into evidence exhibits containing the total cost of the Solar Project and the cost per kWh in unredacted form. However, the remaining Confidential Information covered by the May 4, 2018 Motion and May 17, 2018 Docket Entry continue to meet the confidentiality standards. We find this information has independent economic value from not being generally known or readily ascertainable, that Petitioner takes reasonable steps to maintain its secrecy, and that disclosure would cause harm to Petitioner; therefore, the Commission finds this materials confidential pursuant to Ind. Code §§ 5-14-3-4 and 24-2-3-2, is exempt from public access and disclosure, and will be protected from public access and disclosure by the Commission.

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

1. The attached Settlement Agreement among Petitioner, the OUCC and CAC is approved in its entirety, without change.

2. Petitioner is granted a CPCN for its proposed Solar Project. This Order shall constitute such Certificate.

3. Petitioner's proposed Solar Project is approved as a "clean energy project" pursuant to Ind. Code § 8-1-8.8-3 and qualifies for timely recovery of project costs under Ind. Code § 8-1-8.8-11 as set forth in this Order.

4. Petitioner's cost estimate for the Solar Project, as set forth in Finding No. 9.B.1, is approved, which estimate totals $76.174 million.

5. Petitioner is authorized to timely recover the cost of the Solar Project through the CECA as provided for in the Settlement Agreement.

6. The net proceeds from any sale of RECs stemming from the approved solar facilities generate shall flow back to Petitioner's customers through its CECA tracker.

7. Petitioner shall comply with the reporting requirements set forth in Finding No. 9.D.5 by filing the information and reports in this Cause.

8. The material Petitioner filed in this Cause under seal is declared to contain trade secret information and deemed confidential pursuant to Ind. Code §§ 5-14-3-4 and 24-2-3-2, is exempt from public access and disclosure, and shall be held by the Commission as protected from public access and disclosure, consistent with Finding Paragraph 10.

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

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

APPROVED: MAR 2 0 2019

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

Mary M Becerra

Mary M. Becerra
Secretary of the Commission

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF SOUTHERN INDIANA GAS AND ELECTRIC COMPANY d/b/a VECTREN ENERGY DELIVERY OF INDIANA, INC., FOR: (1) AUTHORITY TO CONSTRUCT, OWN AND OPERATE A SOLAR ENERGY PROJECT AND A FINDING THAT SUCH PROJECT CONSTITUTES A CLEAN ENERGY PROJECT PURSUANT TO IND. CODE CH. 8-1-8.8; (2) ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION OF THE SOLAR ENERGY PROJECT PURSUANT TO IND. CODE CH. 8-1-8.5; AND (3) AUTHORITY TO TIMELY RECOVER COSTS INCURRED DURING CONSTRUCTION AND OPERATION OF THE PROJECT IN ACCORDANCE WITH IND. CODE § 8-1-8.5-6.5 AND IND. CODE § 8-1-8.8-11.	)	**CAUSE NO. 45086**

STIPULATION AND SETTLEMENT AGREEMENT AMONG VECTREN SOUTH, THE INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR AND CITIZENS ACTION COALITION OF INDIANA, INC.

This Stipulation and Settlement Agreement (the "Settlement Agreement") is entered into by and among Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc. ("Vectren South" or the "Company"), the Indiana Office of Utility Consumer Counselor ("OUCC") and Intervenor Citizens Action Coalition of Indiana, Inc. ("CAC"). Vectren South, the OUCC and CAC are collectively referred to herein as the "Settling Parties." The Settling Parties, solely for purposes of compromise and settlement and having been duly advised by their respective staff, experts and counsel, stipulate and agree that the terms and conditions set forth in this Settlement Agreement represent a fair, just and reasonable resolution of all matters raised in this proceeding, subject to their incorporation by the Indiana Utility Regulatory Commission ("Commission") into a final, non-appealable order without modification or further condition that is unacceptable to any Settling Party ("Final Order"). The Settling Parties agree that this Settlement Agreement

resolves all disputes, claims and issues arising from the Commission proceeding currently pending in Cause No. 45086 as between the Settling Parties.

I. CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND RELATED REQUESTS FOR RELIEF

1. **Certificate of Public Convenience and Necessity**. The Settling Parties agree the Commission should grant Vectren South a certificate of public convenience and necessity ("CPCN") pursuant to Ind. Code § 8-1-8.5-1 *et seq.*, to construct a solar energy project totaling approximately 50 megawatts of alternating current ("MWac") and approximately 64 megawatts of direct current ("MWdc") located in Spencer County, Indiana and as described with specificity in Vectren South's case-in-chief (referred to herein as the "Solar Project"). Electricity collected at the substation on the Solar Project's site will be delivered to the adjacent Hoosier Energy Rural Electric Cooperative substation which is connected to the Vectren South system. The Solar Project is in the Midcontinent Independent System Operator ("MISO") Generator Interconnection queue.

2. **Cost Estimate**. The Settling Parties agree Vectren South's construction cost estimate for the Solar Project of $76.174 million, including a contingency, exclusive of AFUDC and post-in-service carrying costs, constitutes a reasonable estimate of the construction costs for the Solar Project and should be approved by the Commission in accordance with Ind. Code § 8-1-8.5-5. This estimate will be used in determining the revenue requirement and rate per unit of production for the Solar Project, and actual costs to construct the Solar Project that exceed or fall below the estimate will not change the agreed upon revenue requirement or rate.

3. **Clean Energy Project**. The Settling Parties agree the Solar Project is a "clean energy project" as defined in Indiana Code § 8-1-8.8-3.

4. **Commencement of Construction**. The Settling Parties acknowledge time is of the essence and will use their best efforts to obtain an Order in this proceeding on or

before February 28, 2019 so construction can commence on or before April 1, 2019 to ensure the Solar Project is eligible for the full 30% Investment Tax Credit ("ITC"). As further described below, the Settling Parties have agreed upon a non-traditional ratemaking approach designed, in part, to accelerate the flow of the benefit from the ITC to customers.

II. USE OF LEVELIZED RATE

5. **Unique Nature of Ratemaking Approach**. The Settling Parties acknowledge that due to the special nature of the Solar Project, including the availability of the ITC to offset project costs, the Solar Project represents a unique opportunity to evaluate alternative approaches to traditional ratemaking not applicable to other CPCN projects. Based on that understanding, the Settling Parties have structured the ratemaking terms set forth in this Settlement Agreement to use a fixed levelized rate per kilowatt hour ("kWh") of produced energy for the life of the investment in the Solar Project. The approach is further designed to allow customers to realize the impact of the ITC more quickly than otherwise could be accomplished through traditional ratemaking.

6. **Initial Levelized Rate**. The Settling Parties agree a levelized rate of $0.05452 per kWh will initially be used to determine the amount recovered annually with respect to Vectren South's investment in the Solar Project (the "Levelized Rate"), subject to adjustment only as set forth in Paragraph 7 of this Settlement Agreement. The Levelized Rate will be incorporated in the Clean Energy Cost Adjustment ("CECA") mechanism, which the Commission approved on August 16, 2017 in Cause No. 44909 for renewable energy projects, in the manner described in Section III of this Settlement Agreement.

7. **Adjustments to Levelized Rate**. The Levelized Rate is subject to adjustment only as set forth below:

a. The Levelized Rate will be adjusted upon issuance of any final order in a future base rate proceeding to capture the impact of changes to the Company's

approved return on equity ("ROE"). The Company will make an adjustment to the Levelized Rate in the first CECA proceeding filed after the issuance of the final base rate case order. In establishing the Levelized Rate, the Settling Parties agreed to an annual baseline production level described below as well as other adjustments to the cost recovery approach, reflected in workpapers that will be made available to the OUCC to review in each CECA proceeding.

b. The Levelized Rate will be adjusted if any adjustments are made to the law governing Indiana State and/or Federal Income Tax Rates that result in a change to other approved tariff rates. The Company will make a thirty (30) day filing seeking an adjustment to the Levelized Rate within sixty (60) days of the effective date of any such adjustments to the Indiana State and/or Federal Income Tax Rates. The Company will provide support for the adjustment to the Levelized Rate to the OUCC upon request, including the workpapers described above.

c. The Levelized Rate will be adjusted if any Liquidated Damages are received in accordance with the provisions of Paragraph 15.

8. **Adjustments to the CECA Recoverable Costs.** The Levelized Rate is based upon an assumed level of production (kWh) from the Solar Project on an annual basis ("Production Baseline"). The Production Baseline, set forth in the table below, shall not change over the life of the Solar Project but for conditions noted in Paragraph 15.

Year	Annual Baseline Production (kWh)
1	109,193,400
2	108,647,433
3	108,104,196
4	107,563,675
5	107,025,856
6	106,490,727
7	105,958,274
8	105,428,482
9	104,901,340
10	104,376,833

11	103,854,949
12	103,335,674
13	102,818,996
14	102,304,901
15	101,793,376
16	101,284,409
17	100,777,987
18	100,274,097
19	99,772,727
20	99,273,863
21	98,777,494
22	98,283,607
23	97,792,189
24	97,303,228
25	96,816,711
26	96,332,628
27	95,850,965
28	95,371,710
29	94,894,851
30	94,420,377
31	93,948,275
32	93,478,534
33	93,011,141
34	92,546,085
35	92,083,355

a. In the event that actual annual production from the Solar Project for a rolling three-year period is less than 90% of the Production Baseline set forth in the table above for the same rolling three-year period and such deviation is not the result of a force majeure event (e.g.and without limitation, tornado, lightning damage, fire, earth quake, acts of state or governmental action impeding performance), Vectren South shall credit the CECA in the next annual filing in the amount of the Levelized Rate multiplied by the difference between the rolling three-year period actual annual production and Production Baseline, demonstrated in the following calculation:

		Actual Production	Baseline Production
2021		100,000,000	109,193,400
2022		97,000,000	108,647,433
2023		95,000,000	108,104,196
Rolling 3-Year Average		97,333,333	108,648,343
Baseline Production Threshold (90%)			97,783,509
Actual Production Below Baseline Threshold		450,175	
Levelized Rate per kWh	$	0.05452	
CECA Production Credit	$	24,544	

b. In the event that actual annual production from the Solar Project for a rolling three-year period is greater than 110% of the Production Baseline set forth in the table above for the same rolling three-year period, Vectren South shall include as a recoverable cost in the CECA in the next annual filing the amount of the Levelized Rate multiplied by the difference between the rolling three-year period actual annual production and Production Baseline, demonstrated in the following calculation:

		Actual Production	Baseline Production
2021		121,000,000	109,193,400
2022		120,000,000	108,647,433
2023		119,000,000	108,104,196
Rolling 3-Year Average		120,000,000	108,648,343
Baseline Production Threshold (110%)			119,513,177
Actual Production Above Baseline Threshold			486,823
Levelized Rate per kWh			$ 0.05452
CECA Production Charge			$ 26,542

III. LEVELIZED RATE RECOVERED THROUGH CECA

9. **CECA Components**. The CECA will recover: (a) the revenue requirement associated with the three solar energy projects totaling approximately 4.3 megawatts of alternating current ("MWac") and two energy storage systems approved in Cause No. 44909 (the "Cause No. 44909 Projects"); and (b) the approved revenue requirement for the Solar

Project.

10. **Derivation of Solar Project Component of CECA**. The Solar Project component of the CECA will be derived by multiplying the then effective Levelized Rate per kWh, as determined in the manner set forth in Paragraphs 6 and 7, by the projected kWh produced by the Solar Project during the upcoming twelve (12) month period, grossed up for Indiana Utility Receipts Tax ("IURT") prior to allocation to the customer classes in the manner set forth in Paragraph 12. Any Production Credit or Charge as defined in Paragraph 8 will be added to this amount to determine the total CECA recoverable costs.

11. **Filing of CECA and Ratemaking Treatment**. The CECA will be filed annually as a subdocket in Cause No. 44909, as follows:

a. In anticipation of completion of two of the Cause No. 44909 Projects by late-2018, the initial filing of the CECA will occur on February 1, 2019 for investments made and completed through December 31, 2018, with initial CECA rates to be effective June 1, 2019;

b. On February 1, 2020, Vectren South will make the second CECA filing and propose two sets of rates for approval:

i. The first set of rates, effective June 1, 2020, will recover the revenue requirement associated with the Cause No. 44909 Projects only.

ii. The second set of rates, effective on the date of in-service of the Solar Project, will recover the revenue requirement associated with both the Cause No. 44909 Projects as well as the Solar Project.

c. Thereafter, CECA filings will occur annually on February 1st of each subsequent year.

d. All costs and recoveries associated with the Solar Project will be excluded from the actual Net Operating Income utilized for the quarterly Fuel

Adjustment Clause statutory earnings test. All costs and recoveries associated with the Solar Project will be excluded from the calculation of Vectren South's electric revenue requirement in each rate case over the life of the Solar Project. The Solar Project will be excluded from Rate Base in such future base rate cases. In addition, the Solar Project CECA revenue and expenses will be excluded from the calculation of the Revenue Requirement in such future base rate cases.

12. **Allocation of CECA to Rate Schedules**. The CECA will be allocated to the Rate Schedules in each CECA tracker filing using the Modified 4CP Allocators Factors as set forth in the approved CECA Tariff in Cause No. 44909, noted as follows:

Rate Schedule	Modified 4CP Allocation Percentage
RS	40.4145%
B	0.1225%
SGS	1.7089%
DGS/MLA	26.1523%
OSS	2.0202%
LP	28.7431%
HLF	0.8385%

The foregoing allocation factors will be updated based on the results of a 4CP Demand study to be presented in a subdocket to Cause No. 43354-MCRA21. Upon Commission approval of the updated 4CP Allocation Factors, the revised factors will be applied to the CECA in the next annual CECA filing.

13. **Energy Charge**. The CECA will be recovered through the energy charge component of all Rate Schedules.

14. **Reconciliation**. The CECA will be reconciled annually as a part of each annual CECA filing, with any over- or under-recovery collection variances returned to or recovered from customers in the Company's subsequent CECA filings. In this manner, the

Levelized Rate for the Solar Project will not change during the agreed upon recovery period, but the variances due to actual customer usage will be reconciled in the CECA.

15. **Liquidated Damages under EPC Agreement**. To the extent First Solar Electric, LLC ("First Solar") pays Vectren South Liquidated Damages as a result of the Solar Project failing to achieve the Minimum Guaranteed Capacity or Guaranteed Capacity established in the Engineering, Procurement and Construction Agreement ("EPC Agreement"), such Liquidated Damages received by Vectren South will be used as an offset to revenue requirements and the Levelized Rate will be recalculated to reflect the reduced revenue requirement. A corresponding adjustment will be made to the annual Production Baseline for the impacted year(s) to match the recalculated Levelized Rate due to decreased Solar Project production.

IV. RECs AND CUSTOMER SPECIFIC CONTRACTS

16. **Renewable Energy Credits.** Any RECs obtained by Vectren South for energy produced by the Solar Project will be utilized by Vectren South in the best interest of its customers. The Settling Parties agree this could include retaining the REC or, after consultation with the OUCC and CAC, selling some amount of RECs to specific customers or to the REC market. The net proceeds resulting from the sale of RECs, will be used as an offset to revenue requirements and returned to customers through the CECA.

17. **Customer Specific Contracts**. In the event a specific customer elects to pay directly for energy produced by the Solar Project, Vectren South agrees to sell this energy and the corresponding RECs at a rate equal to the Levelized Rate, pursuant to a specific contract or rate approved by the Commission; provided, however, that each of the Settling Parties reserves the right to recommend a different rate for Commission approval. All proceeds from contracts for the sale of energy produced by the Solar Project will be used

as an offset to the Company's revenue requirements and returned to customers through the CECA.

IV. FUTURE IMPROVEMENTS TO THE SOLAR PROJECT

18. In the event an investment is made at a later date to either expand the Solar Project to increase production or add technological improvements (*e.g.*, battery storage or other investments to extend the life of the Solar Project beyond that which is contemplated in this Settlement Agreement), such investments will be excluded from this Agreement and included within standard Vectren South rate base to be proposed for recovery in a future proceeding before the Commission.

V. REPORTING

19. **Construction Reporting**. Vectren South will provide quarterly reports documenting the status of the construction of the Solar Project, including actual costs incurred to date, projected costs through the end of construction of the Solar Project, and anticipated completion (in-service) date of the Solar Project. In addition, Vectren South will notify the Commission and the Settling Parties within sixty (60) days of the in-service date of the Solar Project.

20. **On-going Reporting**. In accordance with the Order in Cause No. 44909, Vectren South will include with its annual CECA filings, the following information relating to the Solar Project:

a. generation output of the Solar Project (with monthly detail);

b. the actual revenue requirement during the 12 months covered by the report (the "Reporting Period") based upon the Levelized Rate per kWh and the estimated Production for the 12 month period;

c. the actual production of the Solar Project compared to the Baseline Production as defined in Paragraph 8, both over a three-year rolling period;

d. the total RECs proceeds (in U.S. dollars), if any, associated with solar generation at the Solar Project; and

e. the average annual billing impact on all customer classes

VI. SETTLEMENT AGREEMENT -- SCOPE AND APPROVAL

21. Neither the making of this Settlement Agreement nor any of its provisions shall constitute in any respect an admission by any Settling Party in this or any other litigation or proceeding. Neither the making of this Settlement Agreement, nor the provisions thereof, nor the entry by the Commission of a Final Order approving this Settlement Agreement, shall establish any principles or legal precedent applicable to Commission proceedings other than those resolved herein.

22. This Settlement Agreement shall not constitute nor be cited as precedent by any person or deemed an admission by any Settling Party in any other proceeding except as necessary to enforce its terms before the Commission, or any tribunal of competent jurisdiction. This Settlement Agreement is solely the result of compromise in the settlement process and, except as provided herein, is without prejudice to and shall not constitute a waiver of any position that any of the Settling Parties may take with respect to any or all of the issues resolved herein in any future regulatory or other proceedings.

23. The Settling Parties' entry into this Settlement Agreement shall not be construed as a limitation on any position they may take or relief they may seek in other pending or future Commission proceedings not specifically addressed in this Settlement Agreement.

24. The undersigned have represented and agreed that they are fully authorized to execute this Settlement Agreement on behalf of their designated clients, and their successors and assigns, who will be bound thereby, subject to the agreement of the Settling Parties on the provisions contained herein.

25. The communications and discussions during the negotiations and conferences have been conducted based on the explicit understanding that said communications and discussions are or relate to offers of settlement and therefore are privileged. All prior drafts of this Settlement Agreement and any settlement proposals and counterproposals also are or relate to offers of settlement and are privileged.

26. This Settlement Agreement is conditioned upon and subject to Commission acceptance and approval of its terms in their entirety, without any change or condition that is unacceptable to any Settling Party.

27. Vectren South and the OUCC shall, and the CAC may, offer supplemental testimony supporting the Commission's approval of this Settlement Agreement and will request that the Commission issue a Final Order incorporating the agreed proposed language of the Settling Parties and accepting and approving the same in accordance with its terms without any modification. Such supportive testimony will be agreed-upon by the Settling Parties and offered into evidence without objection by any Settling Party. The Settling Parties hereby waive cross-examination of each other's witnesses.

28. The Settling Parties will support this Settlement Agreement before the Commission and request that the Commission accept and approve the Settlement Agreement. This Settlement Agreement is a complete, interrelated package and is not severable, and shall be accepted or rejected in its entirety without modification or further condition(s) that may be unacceptable to any Settling Party. If the Commission does not approve the Settlement Agreement in its entirety, the Settlement Agreement shall be null and void and deemed withdrawn, upon notice in writing by any Settling Party within fifteen (15) business days after the date of the Final Order that any modifications made by the Commission are unacceptable to it. In the event the Settlement Agreement is withdrawn, the

Settling Parties will request that an Attorneys' Conference be convened to establish a procedural schedule for the continued litigation of this proceeding.

29. The Settling Parties will work together to prepare an agreed upon proposed order to be submitted in this Cause. The Settling Parties will request Commission acceptance and approval of this Settlement Agreement in its entirety, without any change or condition that is unacceptable to any party to this Settlement Agreement.

30. The Settling Parties also will work cooperatively on news releases or other announcements to the public about this Settlement Agreement.

31. The Settling Parties shall not appeal or seek rehearing, reconsideration or a stay of any Final Order entered by the Commission approving the Settlement Agreement in its entirety without changes or condition(s) unacceptable to any Settling Party (or related orders to the extent such orders are specifically and exclusively implementing the provisions hereof) and shall not oppose this Settlement Agreement in the event of any appeal or a request for rehearing, reconsideration or a stay by any person not a party hereto.

Accepted and Agreed on this 10th day of October, 2018

[signature pages follow]

SOUTHERN INDIANA GAS AND ELECTRIC COMPANY D/B/A VECTREN ENERGY DELIVERY OF INDIANA, INC.

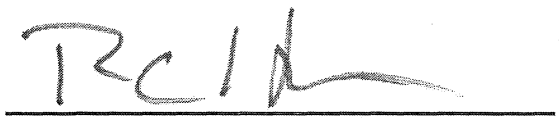
Robert E. Heidorn

Robert Heidorn
P. Jason Stephenson
An Attorney for Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc.

CITIZENS ACTION COALITION OF INDIANA, INC.

Jennifer Washburn
An Attorney for Citizens Action Coalition of Indiana, Inc.

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR



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