

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT)
COMPANY D/B/A AES INDIANA (“AES INDIANA”) FOR)
AUTHORITY TO INCREASE RATES AND CHARGES FOR)
ELECTRIC UTILITY SERVICE, AND FOR APPROVAL)
OF RELATED RELIEF, INCLUDING (1) REVISED)
DEPRECIATION RATES, (2) ACCOUNTING RELIEF,)
INCLUDING DEFERRALS AND AMORTIZATIONS, (3))
INCLUSION OF CAPITAL INVESTMENTS, (4) RATE)
ADJUSTMENT MECHANISM PROPOSALS, INCLUDING)
NEW ECONOMIC DEVELOPMENT RIDER, (5) REMOTE)
DISCONNECT/RECONNECT PROCESS, AND (6) NEW)
SCHEDULES OF RATES, RULES AND REGULATIONS)
FOR SERVICE.)

CAUSE NO. 45911

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

PUBLIC’S EXHIBIT NO.1

PUBLIC REDACTED TESTIMONY OF OUCC WITNESS

MICHAEL D. ECKERT

OCTOBER 12, 2023

Respectfully submitted,



T. Jason Haas
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**TESTIMONY OF OUCC WITNESS MICHAEL D. ECKERT
CAUSE NO. 45911
INDIANAPOLIS POWER & LIGHT COMPANY D/B/A AES INDIANA**

I. INTRODUCTION

NOTE: [REDACTED] INDICATES CONFIDENTIAL INFORMATION

1

2 **Q: Please state your name, business address, and employment capacity.**

3 A: My name is Michael D. Eckert, and my business address is 115 W. Washington St.,
4 Suite 1500 South, Indianapolis, IN, 46204. I am the Director of the Electric Division
5 for the Indiana Office of Utility Consumer Counselor ("OUCC"). My qualifications
6 are set forth in Appendix A of this document.

II. PURPOSE OF TESTIMONY

7 **Q: What is the purpose of your testimony?**

8 A: I testify regarding the OUCC's evaluation and analyses of Indianapolis Power &
9 Light Company d/b/a AES Indiana's ("AES Indiana," "IPL," or "Petitioner")
10 revenue requirement requests contained in its case-in-chief. I address the OUCC's
11 concerns relating to both affordability and storm response. I introduce OUCC
12 witnesses and provide an overview of their testimony. I also explain and support
13 specific adjustments and recommendations regarding certain AES Indiana requests
14 for Fuel Costs, Materials and Supplies, and Transmission and Distribution
15 Materials and Supplies Request.

16 The OUCC recommends the Indiana Utility Regulatory Commission ("IURC" or
17 "Commission"):

18 1) Limit AES Indiana's rate increase to \$19.110 million instead of the \$134.2

- 1 million proposed by Petitioner, as explained by OUCC witness Wes Blakley;
- 2 2) Reject Petitioner's requested 10.6% authorized return on equity, and approve
3 the 9.1% recommendation of OUCC witness Leja Courter;
- 4 3) Authorize AES Indiana to maintain a 39-day coal stock inventory level:
- 5 4) Deny AES Indiana's request for a five-month average of Transmission and
6 distribution inventory;
- 7 5) Continue the current agreement which allows the OUCC and intervenors to file
8 Fuel Adjustment Charge ("FAC") testimony 35 days after AES Indiana files its
9 petition and testimony;
- 10 6) Approve the OUCC's recommended adjustment to fuel;
- 11 7) Calculate depreciation rates under the Average Life Group procedure, as
12 recommended by OUCC witness David Garrett; and
- 13 8) Approve the recommendations and proposals of the OUCC's additional
14 witnesses.

15 **Q: Please describe the review and analysis you conducted in order to prepare**
16 **your testimony.**

17 **A:** I read AES Indiana's petition and prefiled testimony in this proceeding. I also read
18 relevant Commission Orders. I reviewed Petitioner's workpapers and its Minimum
19 Standard Filing Requirements ("MSFR") in this Cause. I submitted data requests,
20 both formal and informal, and reviewed Petitioner's responses to OUCC and
21 Intervenors' (Citizens Action Coalition of Indiana, Inc.; AES Indiana Industrial
22 Group;¹ Wal-Mart Inc.; Kroger; and Rolls Royce) data requests. I examined

¹ Allison Transmission, Inc., Eli Lilly and Company, Indiana University, Indiana University Health, Ingredion, Inc., Marathon Petroleum Company LP, and Messer LLC.

1 pertinent sections of Title 8 of the Indiana Code and Title 170 of the Indiana
2 Administrative Code.

3 I attended the August 24, 2023, Public Field Hearing in this proceeding, the
4 Commission's September 22, 2023, Storm Response Meeting, and the October 2,
5 2023, technical conference in Cause No. 45917.

6 **Q: To the extent you do not address a specific item or adjustment, should that be**
7 **construed to mean you agree with AES Indiana's proposal for that item?**

8 A: No. Any exclusions of specific items, adjustments, or amounts regarding AES
9 Indiana's proposal that are excluded from my or any other OUCC witness's
10 testimony is not an indication of approval. Rather, the scope of my and other
11 OUCC witnesses' testimony is limited to the specific items addressed.

III. OUCC WITNESSES

12 **Q: Please introduce the OUCC's witnesses in this Cause.**

13 A: The following OUCC witnesses provide testimony on the following issues:

14 Mr. Wes Blakley sponsors the OUCC's overall revenue requirement
15 recommendation and testifies regarding certain revenue requirement adjustments.
16 Mr. Blakley incorporates the impact of the other OUCC witnesses'
17 recommendations in his revenue requirements calculations. He testifies to the
18 proposed ratemaking treatment for: 1) ratemaking treatment for COVID-19
19 regulatory asset created as a result of the Order in the Cause No. 45380 Order; 2)
20 regulatory asset amortizations; 3) vegetation management treatment; 4) major
21 storm reserve; and 5) IURC fee of \$0.001163. **(Public's Exhibit No. 2)**

22 Ms. Roopali Sanka explains and supports specific adjustments and
23 recommendations regarding the Company's adjustments to test year distribution
24 system vegetation management expense. **(Public's Exhibit No. 3)**

1 **Mr. Brian Latham** addresses AES Indiana's payroll adjustments including its
2 proposed: 1) open positions adjustment; 2) wage increases, and 3) wage increases'
3 effect on its proposed payroll tax. **(Public's Exhibit No. 4)**

4 **Mr. Kaleb Lantrip** analyzes AES Indiana's AES Customer Ecosystem project and
5 its related adjustments to rate base and operating expenses, Regional Transmission
6 Operator and Off-System Sales/Capacity Sales riders, certain regulatory assets'
7 amortization periods, and a Service Agreement with AES Services. **(Public's**
8 **Exhibit No. 5)**

9 **Ms. Brittany Baker** addresses Petitioner's proposed rate case expense. **(Public's**
10 **Exhibit No. 6)**

11 **Ms. Cynthia Armstrong** presents an overview of the OUCC's position regarding
12 AES Indiana's requests to track consumables and nitrogen oxide ("NOx") emission
13 allowance costs associated with its coal and natural gas generating facilities. Ms.
14 Armstrong also addresses the OUCC's agreement with AES Indiana's pro forma
15 adjustment to non-outage operations and maintenance expense to remove
16 Petersburg Unit 2's and Eagle Valley's Extended Outage costs, consistent with the
17 Settlement Agreement approved in Cause No. 38703 FAC 133 S1. **(Public's**
18 **Exhibit No. 7)**

19 **Mr. Brian Wright** discusses AES Indiana's 2022 Decommissioning Study and
20 addresses costs related to coal combustion residuals ("CCR") and potential future
21 environmental liabilities created by closing CCR disposal sites. In addition, he
22 discusses the best cost treatment for future groundwater remediation. **(Public's**
23 **Exhibit No. 8)**

24 **Mr. Leja Courter** recommends a return on equity of 9.10% for the Company.
25 **(Public's Exhibit No. 9)**

26 **Mr. John Hanks** presents the OUCC's capital structure analysis and recommends
27 a 6.54% weighted average cost of capital ("WACC") that includes the Cost of
28 Equity OUCC witness Leja Courter recommends. **(Public's Exhibit No. 10)**

29 **Mr. David Garrett** employs a depreciation system using actuarial plant analysis
30 to statistically analyze the Company's depreciable assets and develop reasonable
31 depreciation rates and annual accruals. Mr. Garrett's primary recommendation to
32 the IURC is to calculate depreciation rates under the Average Life Group
33 procedure, along with reasonable adjustments to the Company's proposed terminal
34 net salvage rates and mass property service lives. **(Public's Exhibit No. 11)**

35 **Dr. David Dismukes** addresses Petitioner's proposed allocated cost of service
36 study, revenue distribution, rate design, rate adjustment proposals and related

1 tracker-mechanisms. In addition, he recommends the residential customer charge
2 remain unchanged. **(Public's Exhibit No. 12)**

3 **Mr. Derek Leader** discusses AES Indiana's request for a new Economic
4 Development Rider. **(Public's Exhibit No. 13)**

5 **Ms. April Paronish** explains the OUCC's concerns related to Petitioner's request
6 to waive the Commission's administrative rule for remote disconnections; discusses
7 the OUCC's proposed modifications to AES Indiana's communication regarding its
8 proposed Remote Disconnect/Reconnect Program; and discusses the OUCC's
9 concerns with AES Indiana's proposed new residential bill format. **(Public's
10 Exhibit No. 14)**

11 In addition, the OUCC has received more than 1,500 written Customer Comments
12 in this proceeding, submitted as **Public's Exhibit Nos. 15 and 16**. Public's Exhibit
13 No. 16 is comprised of comments previously filed in Cause No. 45917. However,
14 at the time of this filing, the Commission has not ruled on the Joint Petition in that
15 Cause. The issues raised in the Cause No. 45917 Joint Petition are relevant in this
16 case and therefore are included in the OUCC's case-in-chief.

IV. AFFORDABILITY

17 **Q: How does Indiana state policy on affordability apply to this request?**

18 **A:** The Indiana General Assembly has recognized the importance of affordability in
19 two separate policy statements. The first was passed in 2016 and encourages
20 investment in infrastructure "while protecting the affordability of utility services
21 for present and future generations of Indiana citizens." I.C. § 8-1-2-0.5. In the midst
22 of many rate increases (See Table MDE-1), the Indiana General Assembly passed
23 an additional policy statement in the 2023 session. I.C. § 8-1-2-0.6 requires that
24 decisions concerning Indiana's electric generation resource mix, energy
25 infrastructure, and electric service ratemaking constructs must consider certain

1 attributes, more specifically referred to as the “Five Pillars of Electric Utility
2 Service.”² One of the Pillars is affordability.

3 As costs and investments increase, the consistent upward pressure on
4 ratepayers continues. It is imperative the Commission carefully scrutinize utility
5 requests to approve only what is justifiable as reasonably necessary, at a prudent
6 cost, and at a level of service quality providing a reasonable value to the customer.
7 It is also critical to factor customer affordability into the accounting treatment a
8 utility may seek, timing of rate increases, timing of project requests, and
9 prioritization.

10 **Table MDE-1: Recent, Current, and Future Rate Cases**

Utility Name	Cause Number	Petition Date	Order Date	Revenue Increase/(Decrease)
AES Indiana	45029	December 21, 2017	October 31, 2018	\$43.9 Million (3.20%)
AES Indiana	45911	June 28, 2023	Pending	Proposed \$134.2 Million (8.4%)
CEI South	TBD	December 2023	Future Proceeding	Future Proceeding
Duke Energy Indiana	45253	July 2, 2019	June 29, 2020	\$145.9 Million (5.7%)
Indiana Michigan	45235	May 14, 2019	March 11, 2020	\$84,138 Million (5.4%)
Indiana Michigan	45576	July 1, 2021	February 22, 2022	(\$4.7 Million) (0.29%)
Indiana Michigan	45933	August 9, 2023	Pending	Proposed \$116.4 million (6.8%)
NIPSCO	45159	October 31, 2018	December 4, 2019	\$43.6 Million (3.25%)
NIPSCO	45772	September 19, 2022	August 2, 2023	\$291.8 million (19.38%)

² Reliability, Affordability, Resiliency, Stability, and Environmental Sustainability.

1 **Q: Does Table MDE-1 include any proposed and/or actual increases/decreases**
2 **from various trackers, proposed renewable projects, and/or renewable project**
3 **updates?**

4 A: No. Table MDE-1 only includes base rate proceedings. It does not include any of
5 the multiple proposed and/or actual increases/decreases from various trackers,
6 proposed renewable projects, and/or renewable project updates filed with the
7 Commission.

8 **Q: Does the OUCC have concerns about the affordability of AES Indiana's rate**
9 **request?**

10 A: Yes. These concerns are consistent with the Indiana General Assembly's declared
11 policy.

12 **Q: How does the issue of affordability tie into AES Indiana's current rate**
13 **request?**

14 A: AES Indiana is requesting an annual revenue increase of \$134.242 million,³ to be
15 implemented by April 23, 2024.⁴ After rates are increased in this Cause, AES
16 Indiana will continue to change rates quarterly, bi-annually, and annually through
17 its Fuel Adjustment Charge ("FAC"), Demand Side Management Adjustment
18 ("DSMA"), Transmission, Distribution and Storage System Improvement Charge
19 ("TDSIC"), Regional Transmission Organization ("RTO") Adjustment,
20 Environmental Cost Rider ("ECR"), Off-System Sales Margin ("OSS"), and
21 Capacity Adjustment ("CAP") cost tracking mechanisms. The cumulative
22 economic effect on ratepayers implicates affordability.

23 In addition, AES Indiana is requesting approval of two projects in separate
24 dockets, with two additional renewable generation projects recently approved. Each

³ AES Indiana Financial Exhibit AESI-REVREQ; AES Indiana 2023 Basic Rates Case; Schedule REVREQ1

⁴ Verified Petition, Exhibit C.

1 of the four has a rate impact. The four projects' rate impact will add \$5.71 to a
 2 monthly residential bill for 1,000 kWh (See Table MDE-2).

3 **Table MDE-2**

Renewable/Storage Project	Cause Number	\$ Increase per Customer using 1,000 kWh
Petersburg Energy Center Project ⁵	45832	\$1.84
Hardy Hills Solar Purchase Power Agreement ("PPA") ⁶	45493 S1	\$1.34
Pike County Energy Storage ⁷	45920	Proposed: \$2.60
Hoosier Wind Farm Purchase ⁸	45931	Proposed: (\$0.07)
Total		\$5.71

4 **Q: How must affordability be considered?**

5 A: In light of the Indiana General Assembly's stated policy, affordability should be a
 6 constant consideration for all Indiana jurisdictional utilities, as well as the
 7 Commission as it deliberates its decisions. While federal environmental regulations
 8 have increased costs for generation plants in the last decade, and federal regulations
 9 and independent system operator ("ISO") requirements have been added in recent
 10 years, affordability is an issue that must be considered in balancing all investment
 11 decisions to help set spending parameters.

12 In recognizing affordability, the Commission should examine all aspects of
 13 ratemaking relating to cost recovery, revenue requirements, and accounting
 14 treatments, which could help address the financial impact to the customer while
 15 continuing to provide safe, compliant, and reliable utility systems. The Commission

⁵ Cause No. 45832, Direct Testimony of Chad A. Rogers, p. 8, l. 11.

⁶ Cause No. 45493 S1, Direct Testimony of Chad A. Rogers, p. 8, l. 11.

⁷ Cause No. 45920, Corrected Direct Testimony of Chad A. Rogers, p. 21, l. 3.

⁸ Cause No. 45931, Direct Testimony of Patrick Donlan, p. 9, l. 16.

1 has statutory discretion it can exercise to alleviate some of the financial burdens on
2 ratepayers without impacting the utility's ability to maintain safe and compliant
3 systems and earn a reasonable profit.

4 Consistent with the General Assembly's stated policy, the Commission
5 should only approve necessary and reasonable requests for AES Indiana to provide
6 service at reasonable prices and take steps to moderate the imposition of higher
7 rates over time. In recognizing the importance of affordability, examining cost
8 allocation, prioritization, and spreading cost recovery over longer periods of time
9 could help address financial impacts to customers.

10 **Q: Does the OUCC have specific overarching concerns about this particular AES**
11 **Indiana rate request?**

12 **A:** Yes. Individual OUCC witnesses put forth testimony and recommendations
13 regarding specific issues or requests contained in AES Indiana's case. Many of
14 these requests are optional or have discretionary components. The OUCC and the
15 hundreds of ratepayers who submitted comments raise serious concerns about the
16 immediate financial impacts of these requests.

17 The Commission is charged with the task of balancing the interests of the
18 utilities with ratepayers. The OUCC also wants financially sound utilities that can
19 provide reliable and resilient services at reasonable prices. At some point, it
20 becomes crucial to review whether the scales have become imbalanced and weigh
21 too heavily in the utilities' favor. It is also crucial the Commission balance the Five
22 Pillars. Certainly, reliability and resilience are of vital importance. I would argue
23 they have been since the inception of regulation. The same applies to replacing
24 infrastructure. Rates have always been set with these core principles in mind and in

1 the last decade state policy has been updated to ensure that these principles
2 continue. However, it is well-defined that the Indiana General Assembly did not
3 intend for regulated utilities to receive blank checks. The OUCC has presented
4 testimony outlining ways the utilities' requests can be tempered without
5 compromising the Pillars outlined in state policy.

6 Specifically, through the individual witnesses' testimonies, the OUCC
7 requests the Commission examine the various components of AES Indiana's
8 requests and determine if such requests are necessary and prudent at this time, or if
9 some of these expenditures should be reduced or implemented more gradually.

10 The requested relief in this docket would undoubtedly reduce risks for
11 Petitioner and its shareholders; yet there is no acknowledgment that the reduced
12 risk would inure to the benefit of ratepayers such as a recognition of the reduced
13 risk in a lower return on equity ("ROE").⁹ The Commission has an opportunity to
14 review AES Indiana's requests in whole, to say "no," to some, and to limit others
15 while making clear the standards AES Indiana should meet.

V. **OVERVIEW OF AES INDIANA'S CASE-IN-CHIEF AND OUCC
REVENUE REQUIREMENTS**

16 **Q: Please summarize your findings regarding Petitioner's revenue requirement.**
17 **A:** As stated above, AES Indiana requests a \$134.242 million rate increase. By
18 comparison, the OUCC's analysis shows that a cumulative increase of \$19.110
19 million¹⁰ is justified by the evidence in this case.

⁹ See PSI Energy, Inc., 2004 Ind. PUC LEXIS 150, at *145. See also *In re S. Ind. Gas & Elec. Co.*, Cause No. 43839, 289 P.U.R.4th 9 (Apr. 27, 2011), where the Commission denied Vectren's proposed increased ROE, "We do consider the effect tracking mechanisms have in reducing risk in order to ensure that these reduced risks are properly reflected in Vectren South's cost of equity."

¹⁰ Direct Testimony of Wes R. Blakley. Schedule WRB-1.

1 **Q: What is the OUCC's recommended WACC?**

2 A: The OUCC's recommended WACC is 6.54%,¹¹ with a 9.10% COE.

VI. OUCC REVENUE REQUIREMENT ANALYSIS

3 **Q: Please provide an overview of the OUCC's process to evaluate AES Indiana's**
4 **revenue requirements.**

5 A: As an investor-owned utility, AES Indiana's rates and charges are regulated under
6 I.C. § 8-1-2-1, *et seq.* The OUCC reviewed the operating revenues, operating
7 expenses, rate base figures, capital structure, and net operating income from AES
8 Indiana's historical calendar year (2022) and made adjustments to reflect fixed
9 known, and measurable charges.

10 In developing its recommendations, the OUCC reviewed AES Indiana's
11 case-in-chief, exhibits, accounting schedules, attachments, and workpapers. OUCC
12 staff and witnesses issued data requests and gathered financial information about
13 AES Indiana through discovery. OUCC staff members participated in several
14 conference calls with AES Indiana staff to discuss technical issues. The OUCC
15 attended the public field hearings in this Cause and reviewed written comments
16 AES Indiana's ratepayers submitted. The OUCC received more than 1,550 written
17 customer comments, included as Public's Exhibit Nos. 15 and 16.

VII. CURRENT RIDER IMPACT

18 **Q: Have you performed a calculation to show how AES Indiana's current**
19 **trackers impact its residential customers' monthly bill based on 1,000 kWh**
20 **per month usage as of September 18, 2023?**

21 A: Yes. Table MDE-3 below illustrates the tracker impacts on the monthly bill of an

¹¹ Direct Testimony of Wes R. Blakley. Schedule WRB-7.

1 AES Indiana residential customer using 1,000 kWh per month. The current base
 2 rate portion of the monthly bill totals \$95.07. The total monthly bill, including
 3 trackers, equals \$124.56. Therefore, 23.67% of a typical AES Indiana residential
 4 customer's monthly bill is associated with the utility's numerous trackers.

Table MDE-3: Residential Customer Bill Calculation as of September 25, 2023

Line No.	Description	kWh	Rate	\$	% of Bill
1	Customer Charge			\$16.75	13.92%
2	Energy Charge (First 500 kWh per month)	500	\$0.104854	52.43	43.56%
3	Energy Charge (Second 500 kWh per month)	500	\$0.089389	44.69	37.14%
4	Fuel Charge	1,000	(\$0.003102)	(3.10)	-2.58%
5	Demand Side Management Adjustment	1,000	\$0.004519	4.52	3.76%
6	ECR Adjustment	1,000	\$0.000723	0.72	0.60%
7	Capacity Adjustment	1,000	\$0.001886	1.89	1.57%
8	Off-System Sales Margin	1,000	(\$0.001346)	(1.35)	-1.12%
9	Regional Transmission Organization Adjustment	1,000	\$0.000278	0.28	0.23%
10	TDSIC Adjustment	1,000	\$0.003514	3.51	2.92%
11	Total			\$120.34	100.00%
	Description			\$	% of Bill
12	Base Charge			\$113.87	94.62%
13	Non-FAC Trackers			9.57	7.96%
14	FAC			(3.10)	(2.58%)
15	Total			\$120.34	100.00%

VIII. RIDERS

5 **Q: Does AES Indiana propose changing any of its current riders and/or adding a**
 6 **new rider?**

7 **A:** Yes. Currently, AES Indiana has eight established riders and one new proposed
 8 rider. AES Indiana is proposing the following for each of its riders:

9 1) TDSIC Rider (3): AES Indiana proposes no changes;

10 2) FAC Rider (6): Petitioner is proposing a new base cost of fuel of \$0.041479
 11 (current is \$0.032938), and to move the Lakefield PPA fuel costs from the FAC

- 1 to the OSS rider so that all OSS margins will be reflected in the OSS Rider;
- 2 3) Environmental Compliance Cost Recovery Adjustment Rider (20): AES
3 Indiana is proposing the following changes;
- 4 a. Establish a benchmark level in base rates for consumable expenses and
5 reconcile actual expenses on an annual basis;
- 6 b. Include the costs of consumables (limestone, ammonia, coal combustion
7 products and chemicals) above or below the amounts included in base rates
8 and pass through any purchases or NOx allowances sales; and
- 9 c. Include actual sales or purchases made for emissions allowances during the
10 reconciliation period.
- 11 4) Green Power Initiative ("GPI") Rider (21): AES Indiana proposes no changes;
- 12 5) DSMA Rider (22): AES Indiana proposes no changes;
- 13 6) CAP Rider (24): AES Indiana is proposing a new \$19.0 million benchmark
14 (current is \$11.3 million) and to change the reference from "revenue (or
15 expense)" to "expense (or revenue)" to reflect the new Midcontinent
16 Independent System Operator ("MISO") capacity construct, from which AES
17 Indiana expects to make capacity purchases instead of capacity sales.
- 18 7) OSS Rider (25): AES Indiana proposes changing the benchmark to \$28.6
19 million (Current is \$16.3 million) and moving the Lakefield PPA fuel costs
20 from the FAC to the OSS rider so all OSS margins will be reflected in the OSS
21 Rider; and
- 22 8) RTO Rider (26): AES Indiana proposes changing only the benchmark for
23 MISO Non-fuel costs and revenues used to calculate the RTO charge or credit
24 to \$35.8 million and \$3.6 million, respectively; and
- 25 9) Economic Development Rider: This is a new proposal.

1. Transmission, Distribution, and Storage System Improvement Charge Rider

26 **Q: Is AES Indiana proposing any changes to its TDSIC Rider?**

27 A: No. Not in this proceeding.

28 **Q: What does the OUCC recommend regarding the cost allocation factors for
29 AES Indiana's TDSIC?**

30 A: I.C. § 8-1-39-9(a) requires a TDSIC petition to "use the customer class revenue

1 allocation factor based on firm load approved in the public utility's most recent
2 retail base rate case order." The interpretation of this provision has been raised in
3 several TDSIC cases and related appellate proceedings. For purposes of
4 determining AES Indiana's TDSIC cost allocation factors, the OUCC recommends
5 the Commission require AES Indiana to use the customer class revenue allocation
6 factors OUCC witness Dr. Dismukes recommends.

2. Fuel Clause Adjustment Rider

7 **Q: Is AES Indiana proposing any changes to the FAC?**

8 A: Yes. AES Indiana is proposing two changes to the FAC Rider. The first change is
9 to reflect the updated cost of fuel that will be established in this base rate case,
10 which the OUCC opposes, and I address later in my testimony. For the second
11 change, AES Indiana is proposing to move the Lakefield PPA fuel costs from the
12 FAC to the OSS rider so that all OSS margins will be reflected in the OSS Rider,
13 which the OUCC does not oppose.

14 **Q: Does the OUCC have any recommendations regarding the FAC?**

15 A: Yes. The current agreement which allows the OUCC and intervenors to file FAC
16 testimony 35 days after AES Indiana files its petition and testimony should be
17 continued.

3. Environmental Compliance Cost Recovery Adjustment Rider

18 **Q: Is AES Indiana proposing changes to the ECCR?**

19 A: Yes. The OUCC is proposing adjustments to AES Indiana's changes and Ms.
20 Armstrong addresses those changes. In addition, Dr. Dismukes addresses the
21 OUCC's proposed customer class revenue allocation factors for this rider.

4. Green Power Initiative Rider

1 **Q: Is AES Indiana proposing any changes to the GPI?**

2 A: No. However, Dr. Dismukes addresses the OUCC's proposed customer class
3 revenue allocation factors for this rider.

5. Demand Side Management Adjustment Rider

4 **Q: Is AES Indiana proposing any changes to the DSMA?**

5 A: No. However, Dr. Dismukes addresses the OUCC's proposed customer class
6 revenue allocation factors for this rider.

6. Capacity Adjustment Rider

7 **Q: Is AES Indiana proposing any changes to its CAP Rider?**

8 A: Yes. AES Indiana proposes changing its benchmark to \$19.8 million, which the
9 OUCC is not opposing. However, Dr. Dismukes addresses the OUCC's proposed
10 customer class revenue allocation factors for this rider.

7. Off-System Sales Margin Rider

11 **Q: Is AES Indiana proposing any changes to its OSS rider?**

12 A: Yes. AES Indiana proposes changing the benchmark to \$28.6 million and move the
13 Lakefield PPA fuel costs from the FAC to the OSS rider so all OSS margins will
14 be reflected in the OSS Rider. Dr. Dismukes addresses the OUCC's proposed
15 customer class revenue allocation factors for this rider.

8. Regional Transmission Organization Rider

16 **Q: Is AES Indiana proposing any changes to its RTO Rider?**

17 A: Yes. AES Indiana is proposing to change its benchmark amount for MISO Non-
18 fuel costs and revenues used to calculate the RTO charge or credit to \$35.8 million
19 and \$3.6 million, which the OUCC is not opposing. However, Dr. Dismukes
20 addresses the OUCC's proposed customer class revenue allocation factors for this

1 rider.

9. *Economic Development Rider*

2 **Q: Is AES Indiana proposing a new Economic Development Rider in this**
3 **proceeding?**

4 A: Yes. Mr. Leader discusses this rider and addresses the OUCC's concerns.

IX. COAL INVENTORY LEVEL (TONS)

5 **Q: Does the OUCC agree with AES Indiana's proposed coal inventory level?**

6 A: No. A reasonable amount of coal supply inventory must be maintained and reflected
7 in customers' base rates. AES Indiana is allowed to earn a return on its coal
8 inventory, which is different than the fuel costs recovered through the FAC. AES
9 Indiana's coal inventory has increased since June 2022. Petitioner's coal inventory
10 at the beginning of the test year (January 1, 2022) was [REDACTED]¹² tons
11 [REDACTED]¹³ and at the end of the test year (December 31, 2022) its coal
12 inventory had increased to 1,065,105¹⁴ tons (\$52,416,505)¹⁵.

13 **Q: Was the average monthly coal inventory (Days) for 2022 higher than the**
14 **average monthly levels in 2018, 2019, 2021, and 2022?**

15 A: Yes. As follows¹⁶:

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

¹² 45911_AESIN OUCC DR 15-1 Confidential 1091123.xlsx, Tab: Inv Summary.

¹³ *Id.*

¹⁴ 45911_AESIN_Financial Exhibits and Workpapers_062823.xls, Tab: RB8-WP3.

¹⁵ *Id.*

¹⁶ 45911_AESIN OUCC DR 15-1 Confidential 1091123.xlsx, Tab: Inv Summary.

1 **Q: Has Petitioner's coal inventory balance decreased since the end of the test**
2 **year?**

3 A: No. In fact, Petitioner's coal inventory balances continued to increase through July
4 31, 2023.

5 **Q: Has AES Indiana struggled to maintain its coal inventory pile effectively and**
6 **efficiently with respect to the quantity it has on hand?**

7 A: Yes. The table above shows AES Indiana has struggled to maintain its coal
8 inventory effectively or efficiently at 39 days as approved in Petitioner's last rate
9 case. The Table shows AES Indiana had excessive coal inventory during most of
10 2022 and all of 2023 thus far, which imposes an additional and unnecessary cost on
11 ratepayers. AES Indiana's test year end coal inventory as of December 31, 2022, is
12 above the 39-day average approved in its last rate case and above the amount
13 requested in this proceeding.

14 **Q: Are you opposing Petitioner's proposed Maximum Burn Day ("MBD") and**
15 **cost of inventory per ton?**

16 A: No. I am not opposing AES Indiana MBD level of 10,500¹⁷ and cost of inventory

¹⁷ 45911 Direct Testimony of Alexander J. Dickerson, Attachment AJD-2, p. 1.

1 of \$49.30¹⁸.

2 **Q: Please explain how you calculated the OUCC's recommended coal inventory**
3 **level.**

4 A: The OUCC calculated the inventory level by multiplying 39 days by the MDB
5 (10,500) by the inventory cost per ton (\$49.30).

6 **Q: What is the amount of coal inventory in days, tons, and dollars the OUCC is**
7 **recommending be included in rate base?**

8 A: An average of the test year would be a reasonable coal inventory level for Petitioner
9 to include in rate base. The OUCC is recommending an inventory level of 409,500
10 tons (39 days) or \$20,188,350. Thus, the OUCC is recommending a downward
11 adjustment of \$32,321,327 as opposed to AES Indiana's downward adjustment of
12 \$26,627,177 which is \$5,694,150 more than Petitioner.

X. TRANSMISSION AND DISTRIBUTION INVENTORY

13 **Q: Is AES Indiana proposing to use a five-month materials and supplies inventory**
14 **average instead of a 13-month materials and supplies inventory for**
15 **Transmission and Distribution Inventory?**

16 A: Yes. AES Indiana witness Michael Holtsclaw proposed this change "for
17 transmission and distribution inventory because recent supply chain issues and

¹⁸ *Id.*

1 inflation have increased the cost of these materials & supplies and high lead times
2 have caused AES Indiana to increase inventory to serve customers.”¹⁹

3 **Q: What is the difference between a five-month average and a 13-month average?**

4 A: According to Mr. Holtsclaw, the 13-month average inventory cost from December
5 1, 2021, through December 31, 2022, was \$37.9 million²⁰ and the five-month
6 average from August 1, 2022, through December 31, 2022, was \$49.7 million²¹.
7 Thus, Mr. Holtsclaw's proposal increases inventory by \$11.8 million.

8 **Q: Why is a 13-month average inventory more appropriate than a five-month
9 average inventory?**

10 A: Average inventory is an estimation of the amount or value of inventory a company
11 has over a specific amount of time. Inventory fluctuates during the year because of
12 many reasons such as timing of construction projects, delivery timing, weather,
13 public health issues such as the pandemic, transportation issues, economic
14 conditions, and others. Using a shorter period will not provide an accurate look of
15 the inventory levels or pricing for a full year which would account for the items
16 mentioned above. Inventory balances can fluctuate widely during a year. Thus, an
17 average inventory balance evens out sudden spikes in either direction and delivers
18 a more stable indicator of inventory.

19 **Q: What do you recommend regarding the Petitioner's proposed five-month
20 average for transmission and distribution inventory?**

¹⁹ Direct Testimony Michael Holtsclaw, p. 6, ll. 14-17.

²⁰ *Id.* 1.20.

²¹ *Id.* 1.21.

1 A: The OUCC recommends the Commission deny Petitioner's request for a five-month
2 and use the traditional 13-month average which results in an inventory amount of
3 \$37.9 million for Transmission and Distribution Inventory.

XI. FUEL COST

4 **Q: Does the OUCC accept AES Indiana's requested base cost of fuel?**

5 A: No. AES Indiana is requesting a base cost of fuel that is too high given
6 current market conditions. Petitioner is proposing a \$0.041479 per kWh base cost
7 of fuel as compared to the \$0.032938 currently approved base cost of fuel.

8 **Q: What components of the base cost of fuel are too high?**

9 A: The cost of natural gas is too high.

10 **Q: Why do you believe AES Indiana's cost of natural gas is too high?**

11 A: Petitioner used the forecasted cost of natural gas for 2024 as of [REDACTED]
12 As of [REDACTED] the forecasted cost of natural gas for 2024 had
13 decreased by approximately 2.0%.

14 **Q: Is the forecasted cost of natural gas expected to decrease?**

²² Confidential Attachment MDE-8.

²³ Confidential Attachment MDE-9.

1 A: Yes. Fitch,²⁴ Reuters,²⁵ and the Economy Forecast Agency²⁶ all expect the cost of
2 natural gas to drop below \$3.00 per dekatherm.

3 **Q: What factors are effecting the cost of natural gas?**

4 A: Natural gas prices are decreasing for a variety of reasons including: 1) increasing
5 gas production; 2) above-average storage levels; 3) and a predicted mild winter in
6 the US and Europe.

7 **Q: Would a fuel adjustment affect Petitioner's earnings?**

8 A: No. The changes in fuel costs do influence the \$134 million revenue increase, but
9 do not influence AES Indiana's earnings level. Fuel costs do not impact earnings
10 because, by law, electric utilities are required to only seek recovery of actual
11 wholesale natural gas costs from customers on a dollar-for-dollar basis, without
12 markup.

13 **Q: What is the current cost of natural gas?**

14 A: According to the September 12, 2023, U.S. Energy Information Administration
15 ("EIA")'s Short-Term Energy Outlook, the forecasted cost of natural gas for 2023
16 and 2024 is \$2.58 (\$ per million Btu) and \$3.24 (\$ per million Btu), respectively.
17 The same report shows the actual cost of natural gas at the time of AES Indiana's
18 rate case filing as \$3.90 (\$ per million Btu). (Attachment MDE-13.²⁷)

19 **Q: What do you recommend regarding AES Indiana's fuel cost?**

20 A: AES Indiana should look at its forecasted fuel costs in the rate case and, if there has

²⁴ Attachment MDE-10.

²⁵ Attachment MDE-11.

²⁶ Attachment MDE-12.

²⁷ Attachment MDE-13, *STEO Current/Previous Forecast Comparisons: U.S. Energy Production and Consumption Summary*, U.S. Energy Association, [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.eia.gov/outlooks/steo/pdf/compare.pdf](https://www.eia.gov/outlooks/steo/pdf/compare.pdf), retrieved September 29, 2023.

1 been a significant change in the cost of the fuel inputs, AES Indiana should
2 recalculate its fuel costs for the new rates. The OUCC's adjustment lowers fuel costs
3 by \$730,754.

XII. STORM DAMAGE AND RESTORATION

4 **Q: Did Central Indiana experience a severe thunderstorm during the afternoon**
5 **of June 29, 2023 (“June 29 storm”), that impacted AES Indiana’s service**
6 **territory?**

7 **A:** Yes. AES Indiana classified the June 29 storm as a “Level 3” event. The National
8 Weather Service classified the June 29 storm as a derecho and stated:

9 A line of thunderstorms developed across Iowa and then turned into
10 a derecho that moved through central Indiana during the afternoon of
11 June 29. Widespread wind damage occurred, with reports of wind
12 gusts over 70 mph. Numerous power outages occurred, with some
13 areas remaining without power into the next day.²⁸

14 In addition, two subsequent storms impacted AES Indiana 's service territory on
15 Friday, June 30, 2023, and Sunday, July 2, 2023.²⁹ AES Indiana provided more

²⁸ <https://www.weather.gov/ind/june292023derecho>

²⁹ Attachment MDE-7, Cause No. 44576 and 44602, Petitioner Indianapolis Power & Light Company Compliance Filing: Major Storm Damage Restoration Reserve Report, Filed August 1, 2023.

1 detail in its August 1, 2023, Major Storm Damage Restoration Reserve Report to
2 the Commission (Attachment MDE-7).

3 **Q: Did the OUCC and CAC request an Investigation into AES Indiana's response**
4 **to the June 29 Storm?**

5 A: Yes. The OUCC and CAC filed their "Joint Petition for Commission
6 Investigation"³⁰ on July 11, 2023, and it was docketed as Cause No. 45917 (See
7 Attachment MDE-1).

8 **Q: What was the result of the OUCC's and CAC's request for Commission**
9 **Investigation?**

10 A: At this point in time, the Commission has not ruled on the request for an
11 investigation. However, it did order AES Indiana to appear at an October 2, 2023,
12 Technical Conference to discuss its responses to outages and storm restoration, with
13 a specific focus on outages that occurred on June 29, 2023, and continued into the
14 following week. Separately, the Commission invited CenterPoint Energy, Duke

³⁰ See Attachment MDE- 1.

1 Energy Indiana, Indiana Michigan Power Company, and NIPSCO to offer
2 presentations at a Storm Response Meeting on September 22, 2023.

3 **Q: Did you attend both of these meetings?**

4 A: Yes. I also reviewed all five presentations which are attached to my testimony as
5 Attachments:

6 a) Attachment MDE-2: AES Indiana Technical Conference presentation;

7 b) Attachment MDE-3: CenterPoint Storm Response Meeting presentation;

8 c) Attachment MDE-4: Duke Energy Storm Response Meeting presentation;

9 d) Attachment MDE-5: Indiana Michigan Storm Response Meeting
10 presentation; and

11 e) Attachment MDE-6: NIPSCO Storm Response Meeting presentation.

12 **Q: How many AES Indiana customers were without power and how long did it**
13 **take AES Indiana to restore power?**

14 A: According to AES Indiana, the June 29 storm affected 98,380³¹ customers, and the
15 restoration spanned 122 hours.³²

16 **Q: What events cause a severe thunderstorm to be classified as a "derecho"?**

17 A: According to the National Weather Service:

18 A derecho (pronounced similar to "deh-REY-cho") is a widespread,
19 long-lived wind storm that is associated with a band of rapidly
20 moving showers or thunderstorms. Although a derecho can produce
21 destruction similar to the strength of tornadoes, the damage typically
22 is directed in one direction along a relatively straight swath. As a
23 result, the term "straight-line wind damage" sometimes is used to
24 describe derecho damage. By definition, if the wind damage swath
25 extends more than 240 miles (about 400 kilometers) and includes

³¹ Attachment MDE-2, AES Indiana Technical Conference Presentation, p. 36.

³² *Id.*

1 wind gusts of at least 58 mph (93 km/h) or greater along most of its
2 length, then the event may be classified as a derecho.³³

3 **Q: How does AES Indiana determine whether a severe thunderstorm is classified**
4 **as a Level 3 storm?**

5 A: AES Indiana classifies a storm as a Level 3 event if it "...causes loss of electric
6 service to more than 10% but less than 50% of IPL's customers and the amount of
7 system damage makes it likely that available IPL resources cannot restore service
8 within 48 hours."³⁴

9 **Q: When did AES Indiana say it restored power to its customers?**

10 A: AES Indiana's 5:00 p.m. report (See Attachment MDE-14) on July 4, 2023, stated
11 it had zero customers without power. In addition, according to its Major Storm
12 Damage Restoration Report to the Commission, "...the restoration was completed
13 on July 4th."³⁵

14 **Q: Is the OUCC aware of customers claiming they remained without power as of**
15 **the late afternoon of July 4, 2023?**

16 A: Yes. There were several Twitter posts³⁶ from AES Indiana customers who stated
17 they had lost power on June 29 and were still without power after 5:00 pm on July
18 4.

19 **Q: How many people helped with the restoration?**

20 A: According to the Major Storm Damage Restoration Report, a total of 768 people
21 supported the restoration effort. The total field resources deployed, including AES
22 Indiana linemen, contractors Mutual Assistance linemen, and vegetation crews

³³ <https://www.weather.gov/lmk/derecho>

³⁴ Cause Nos. 44576/44602, Verified Rebuttal testimony of Michael L. Holtsclaw, p. 3, ll. 7 - 10.

³⁵ Attachment MDE-7, Cause Nos. 44576/44602, Petitioner Indianapolis Power & Light Company Compliance Filing: Major Storm Damage Restoration Reserve Report (August 1, 2023).

³⁶ Attachment MDE – 1.

1 were comprised of 629 people working in the field with an additional 139 people
2 in support roles in the office and dispatch centers.³⁷

3 **Q: Did AES Indiana request assistance from Great Lakes Mutual Assistance**
4 **Group and the Midwest Mutual Assistance Group?**

5 A: No. AES Indiana did not request help from either of these assistance groups.
6 However, it did request help from independent contractors.³⁸

7 **Q: What concerns does the OUCC have regarding AES Indiana's response to this**
8 **storm event?**

9 A: The OUCC has three specific concerns:

10 1) Did AES Indiana request assistance from all of the available storm restoration
11 services it had available to it?

12 2) Did AES Indiana properly notify its customers on a timely basis through
13 appropriate communication methods?

14 3) Did AES Indiana provide accurate information to the Commission of the
15 situation?

16 **Q: Did AES Indiana request assistance from all of the available storm restoration**
17 **services it had available to it?**

18 A: No. Based on the presentations made at the Commission's September and October
19 meetings as noted above, AES Indiana did not request assistance from all of the
20 available storm restoration assistance options. AES Indiana chose not to ask for
21 assistance from the Great Lakes Mutual Assistance Group and the Midwest Mutual
22 Assistance Group regarding the June 29 event.³⁹

23 **Q: Are you aware of other utilities receiving assistance or offering their crews for**
24 **assistance?**

25 A: Yes. In its storm response meeting presentation, NIPSCO (See attachment MDE-6,

³⁷ Attachment MDE-7.

³⁸ Attachment MDE-2, p. 33.

³⁹ Attachment MDE-15, Deposition of Michael Holtsclaw, pp. 38-39, Sept. 6, 2023.

1 p. 4) stated:

2 A Mutual Assistance request from Great Lakes Mutual Assistance Group
3 was sent out asking for 350 Distribution Line full-time equivalents
4 ("FTEs") for Duke Energy Indiana and NIPSCO released 36 FTEs and Com
5 Ed released 147 FTEs to report to DEI.

6 Indiana Michigan, in its storm presentation, indicated it cancelled the I&M Weather
7 Alert at 6:38 pm on June 29, 2023, and that it "[c]ontinued to monitor weather and
8 prepared crews to help other utilities if called upon." During the storm response
9 meeting, Indiana Michigan stated that it released its crews on the morning of Friday
10 June 30, 2023, but it did not receive mutual assistance requests from other utilities.

11 **Q: Why didn't AES Indiana formally request any crews through the mutual**
12 **assistance network?**

13 A: AES Indiana stated it believed it had enough crews available and chose not to ask
14 for help from other utilities through the Great Lakes Mutual Assistance Group and
15 the Midwest Mutual Assistance Group.

16 **Q: Did AES Indiana properly notify its customers on a timely basis through**
17 **appropriate communication methods?**

18 A: No. AES Indiana, in its presentation to the Commission on October 2, stated that it
19 did not provide advanced notifications to customers regarding the June 29, 2023,
20 storm.

21 **Q: Was the Company aware of the pending storm and the potential severity of**
22 **the storm?**

23 A: Yes. In its October 2, 2023, presentation to the Commission, Petitioner stated at
24 11:00 am on June 29, 2023, the company knew that there was potential for a severe

1 storm. At 3:00 pm, the company knew a major storm was coming and that it was
2 most likely a derecho based on weather forecasts and radar images.

3 **Q: Did AES Indiana provide accurate information to the Commission during the**
4 **storm event?**

5 A: No. There were at least three instances where AES Indiana did not provide accurate
6 information to the Commission. AES Indiana did not provide an accurate total
7 number of customers who were experiencing outages, the number of storms, and
8 complete outage restoration of customers.

9 **Q: Please explain the issue with the number of customers that AES Indiana**
10 **reported as having outages.**

11 A: AES Indiana's August 1, 2023, reports showed 81,265 customers without service.
12 However, at the October 2, 2023, technical conference AES Indiana stated that
13 there were 98,380 customers who experienced outages from the June 29, 2023,
14 storm. Thus, AES Indiana initially underreported the number of customers
15 experiencing outages by more than 20%. This inaccuracy is concerning, especially
16 since the utility has fully implemented AMI technology.

17 **Q: Did AES Indiana provide an accurate description of the storms within the**
18 **event?**

19 A: No. During the event, AES Indiana was providing outage information regarding
20 incidents and customers periodically each day of the event. However, AES Indiana
21 never mentioned in these reports that it experienced a second storm on June 30 and

1 a third storm on July 2 that impacted outage restoration for the first storm (June 29,
2 2023).

3 **Q: Did AES Indiana report the final restoration of all customers on July 4, 2023?**

4 A: Yes. Petitioner's 5:00 p.m. report (Attachment MDE-14) on Tuesday, July 4
5 indicated that all customers had their service restored. However, Petitioner's
6 comments during the October 2, 2023, technical conference indicated certain
7 customers did not have their service restored until Wednesday July 5.

8 **Q. Were there problems with AES Indiana's reporting to the Commission?**

9 A. Yes. The reports from AES Indiana to the Commission did not differentiate
10 between storms 1, 2, and 3. Thus, reports to the Commission showed all outages
11 were related to storm 1 and did not identify the effects of storm 2 and storm 3 on
12 the outages. Because this was not clear in the reports, this may explain why the
13 "zero outage" report on July 4, 2023, did not make sense.

14 **Q. Should the Commission consider changes to its storm reporting?**

15 A. Yes. The OUCC would at least recommend and support lowering the current 5,000
16 customer outage threshold level to 1,000 customer outage threshold level as
17 suggested by AES at the October 2 Technical Conference. Going further and
18 continuing reporting until the last customer is connected would allow for an even
19 more accurate and comprehensive evaluation of future storm events by the
20 Commission and the OUCC.

21 **Q. Is the OUCC reiterating its desire for a Commission investigation per the joint**
22 **petition filed in Cause No. 45917?**

23 A. Yes. The OUCC respectfully submits that a full investigation would allow for more
24 informed recommendations regarding the June 29 event. However, it would also

1 allow for a more complete examination of, and recommendations for, potential
2 additional improvements to the Commission's storm reporting procedures. The
3 OUCC has not had sufficient time since October 2 to formulate a comprehensive
4 set of reporting recommendations.

5 **Q. Would stronger vegetation management practices have helped reduce the**
6 **number and length of these outages?**

7 A. Probably. It is worth noting that during the first six months of 2023, Petitioner
8 performed vegetation management on 130 miles of distribution lines. This would
9 put AES Indiana on pace for 260 miles for the year, as mentioned in the testimony
10 of OUCC witness Roopali Sanka. Ms. Sanka's testimony notes that AES Indiana
11 averaged 660 miles of distribution line vegetation management over the five-year
12 period from 2018 through 2022. The annual totals for both 2021 and 2022 were
13 below the five-year average, 512 and 589 miles⁴⁰, respectively.

XIII. OTHER CONCERNS

14 **Q: Did the Commission recently issue an order addressing the effective date of**
15 **rate changes?**

16 A: Yes. In Cause No. 45772, the most recent rate case for Northern Indiana Public
17 Service Company, LLC ("NIPSCO"), the NIPSCO Industrial Group and the OUCC
18 filed a motion requesting the Commission require NIPSCO to apply its new rates
19 and charges approved on a prospective basis from the effective date of the new
20 rates, rather than apply the new rates to bills issued after the effective date. The
21 Commission granted the motion in an order issued on October 11, 2023, finding

⁴⁰ Cause No. 45911, Direct Testimony of Roopali Sanka.

1 that “neither the Settlement Agreement nor the August Order approving that
2 Settlement Agreement authorized NIPSCO to implement the new rates on a bills-
3 rendered basis, as opposed to on a consumption basis.” (Cause No. 45772, Order
4 of the Commission on Motion to Enforce at 2 (Oct. 11, 2023).)

5 **Q: Should AES implement rates on a prospective basis in this case?**

6 A: Yes. AES Indiana’s petition is silent on this specific issue. However, the OUCC
7 requests the Commission find that any rate change approved in this proceeding only
8 apply on service rendered by AES Indiana on or after the effective date of the rate
9 change, and not on bills rendered after the effective date, which may include service
10 provided before the effective date.

XIV. RECOMMENDATIONS

11 **Q: What do you recommend in this proceeding?**

12 A: I recommend the Commission:

- 13 1) Approve the OUCC's revenue requirement adjustments and recommendations,
14 including limiting the overall increase in this case to \$19.110 million, rather
15 than the \$134.2 million requested by Petitioner;
- 16 2) Extend the current agreement which allows the OUCC and intervenors to file
17 FAC testimony 35 days after AES Indiana files its petition and testimony be
18 continued;
- 19 3) Deny AES Indiana’s request to include its OSS tracker in its FAC filing, unless
20 AES Indiana agrees to allow the OUCC a minimum of forty-two (42) days to
21 review AES Indiana’s FAC testimony;
- 22 4) Approve the OUCC's recommended base cost of fuel; and
- 23 5) Approve recommendations detailed in the testimony of additional OUCC
24 witnesses.

25 **Q: Does this conclude your testimony?**

26 A: Yes.

APPENDIX A

1 **Q: Please describe your educational background and experience.**

2 A: I graduated from Purdue University in West Lafayette, Indiana in December 1986,
3 with a Bachelor of Science degree, majoring in Accounting. I am licensed in the
4 State of Indiana as a Certified Public Accountant. Upon graduation, I worked as a
5 Field Auditor with the Audit Bureau of Circulation in Schaumburg, Illinois until
6 October 1987. In December 1987, I accepted a position as a Staff Accountant with
7 the OUCC. In May 1995, I was promoted to Principal Accountant and in December
8 1997, I was promoted to Assistant Chief Accountant. As part of the OUCC's
9 reorganization, I accepted the position of Assistant Director of its
10 Telecommunications Division in July 1999. From January 2000 through May 2000,
11 I was the Acting Director of the Telecommunications Division. During an OUCC
12 reorganization, I accepted a position as a Senior Utility Analyst and in September
13 2017, I was promoted to Assistant Director of the Electric Division. In February
14 2022, I was promoted to the Director of the Electric Division. As part of my
15 continuing education, I have attended the National Association of Regulatory
16 Utility Commissioners' ("NARUC") two-week seminar in East Lansing, Michigan.
17 I attended NARUC's Spring 1993 and 1996 seminar on system of accounts. In
18 addition, I attended several CPA sponsored courses and the Institute of Public
19 Utilities Annual Conference in December 1994 and December 2000.

FILED
July 11, 2023
**INDIANA UTILITY
REGULATORY COMMISSION**

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**VERIFIED JOINT PETITION OF INDIANA)
OFFICE OF UTILITY CONSUMER COUNSELOR)
AND CITIZENS ACTION COALITION FOR A)
COMMISSION INVESTIGATION INTO AES) CAUSE NO. 45917
INDIANA’S PRACTICES AND PROCEDURES)
REGARDING POWER OUTAGE RESTORATION)
AFTER THE JUNE 29, 2023 STORM.)**

JOINT PETITION FOR COMMISSION INVESTIGATION

The Indiana Office of Utility Consumer Counselor (“OUCC”) and Citizens Action Coalition (“CAC”) respectfully petition the Indiana Utility Regulatory Commission (“Commission”) to commence an investigation to assess AES Indiana’s practices and procedures for storm outage restoration.

Severe thunderstorms moved through central Indiana during the afternoon of June 29, 2023, particularly impacting the AES Indiana customer footprint.¹ Additional storm activity impacted Indiana in the following days.²

AES Indiana’s storm outage reports to the Commission, during this timeframe, stated as follows:

- Its initial report stated that as of 5:54 pm on Thursday, June 29, the number of customers affected by power outages was 70,196.
- On Friday, June 30 at 4:00 pm, AES Indiana stated: 550 personnel were working on restoration efforts, the total number of affected customers was approximately 80,000, and 37,882 customers remained without power at the time.

¹ <https://www.weather.gov/ind/june292023derecho> Retrieved 7-11-23.

² <https://www.wthr.com/article/weather/weather-blog/sunday-storm-recap-latest-round-of-severe-weather-june-2-2023/531-afde61a8-6934-4806-9fda-eac4b6e4b934> Retrieved 7-11-23.

- As of Saturday, July 1 at 2:00 pm, 20,748 customers remained without power.
- As of Sunday, July 2 at 2:00 pm, approximately 6,857 customers remained without power. The same report included an Estimated Service Restoration Time of “Mid-Day Monday.”
- The report for Monday, July 3 at 6:00 am showed an Estimated Service Restoration Time of “Midday Today,” with 3,762 customers still out.
- The report for Monday, July 3 at 2:00 pm continued to show an Estimated Service Restoration Time of “Midday Today,” with 3,042 customers still out. In this report, the utility revised the Estimated Total Number of Customers affected to approximately 81,640.
- As of Tuesday, July 4 at 5:00 pm, AES reported it had approximately 0 customers without power.
- However, the claim of 0 outages is contradicted by several Twitter posts from AES customers in the late afternoon of July 4, which are attached hereto.

Given the storm event, the magnitude of the outages and the extended periods of time for restoration, the OUCC requests the Commission open an investigation so that the Commission, the OUCC and all stakeholders have an opportunity to learn from AES Indiana what efforts it took, both in preparation and after the storm, to mitigate damages and also the efforts taken to restore power.

Through the Indiana General Assembly, the Commission possesses broad authority to regulate operations of jurisdictional utilities within the State. In order to fulfill its statutory duties and provide meaningful oversight, the OUCC requests the Commission initiate an investigation to ascertain information from AES Indiana about the practices and procedures they took to prepare for and to address the storm outages. The Commission should evaluate

the practices and procedures, including its reporting requirements, to ensure Indiana ratepayers are receiving the best services under the circumstances and that meaningful investments have been made to protect the reliability and resiliency of its infrastructure.

In support of this Petition, the OUCC and CAC represent the following:

1. The Commission took similar action in response to the economic upheaval caused by the onset of the COVID-19 pandemic. Its May 27, 2020 Order noted:

The Commission is charged with the duty of ensuring that public utilities provide reasonably adequate service and facilities at just and reasonable rates. Ind. Code § 8-1-2-4. The Commission anticipates many impacts of the COVID-19 pandemic may not be fully understood for months, if not years, as the effect is ongoing. (Cause No. 45380, May 27, 2020, Order, p. 4.)

2. The Commission has authority to initiate an investigation into all matters relating to any public utility pursuant to Ind. Code § 8-1-2-58. In addition, Ind. Code § 8-1-2-72 authorizes the Commission to alter or amend any order made by the Commission, upon notice and after opportunity to be heard.

3. In addition to the foregoing statutory provisions, the Indiana Court of Appeals has specifically found that inherent in this grant of power is the implicit power and authority to “do that which is necessary to effectuate the regulatory scheme.” *South Eastern Indiana Natural Gas v. Ingram*, 617 N.E.2d 943, 948 (Ind. Ct. App. 1993).

4. Consistent with the Commission’s authority and obligation under Ind. Code § 8-1-2-58, the OUCC and CAC request the Commission open an investigation to ascertain the practices and procedures undertaken by AES Indiana to address the causes of the loss of power and the timely restoration of power outages as a result of the June 29, 2023 storm.

5. OUCC and CAC request the Commission make AES Indiana a respondent to this petition and that a procedural schedule be set for the purpose of receiving testimony and other evidence.

6. To the extent other requests for relief are submitted to the Commission, the OUCC and CAC request the Commission conduct a uniform investigation to address all issues in a manner that supports administrative efficiency.

Respectfully submitted,

INDIANA OFFICE OF UTILITY CONSUMER
COUNSELOR



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VERIFICATION

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

DATED: July 11, 2023



William I. Fine, Attorney No. 6830-45
Utility Consumer Counselor, State of Indiana

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *Verified Joint Petition for an Investigation Into AES Indiana's Practices and Procedures Regarding Power Outage Restoration After The June 29, 2023 Storm* has been served upon the following in the captioned proceeding by electronic service on July 11, 2023.

Nicholas M. Grimmer
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ATTACHMENT



Bryan Wood
@brybrywood



I was just told by a customer service rep that despite not having power since Thursday and having a power line down I'm my yard we are not slated for restoration today. So stop quoting before you can deliver. Adopt the underpromise overdeliver philosophy. ✌️

5:37 PM · Jul 4, 2023 · 75 Views



Bryan Wood
@brybrywood



You still have an entire street that lost power since 6/29... why is this happening? Stop quoting inaccurate information @AESIndiana . Why do I have a potentially live wire down in my yard after 5 days?!

5:44 PM · Jul 4, 2023 · 29 Views



!EVAN™
@evantn



This is AGAIN a bald lie. We just spoke to your customer service AGAIN and you have NO plan to restore our power and have not been on our property to even assess.

5:59 PM · Jul 4, 2023 · 57 Views



!EVAN™
@evantn



The situation is what it is, but peddling misinformation is something different entirely. We have power lines down in our yard and no power since Thursday and you have been aware of it the entire time and done nothing.

6:00 PM · Jul 4, 2023 · 58 Views

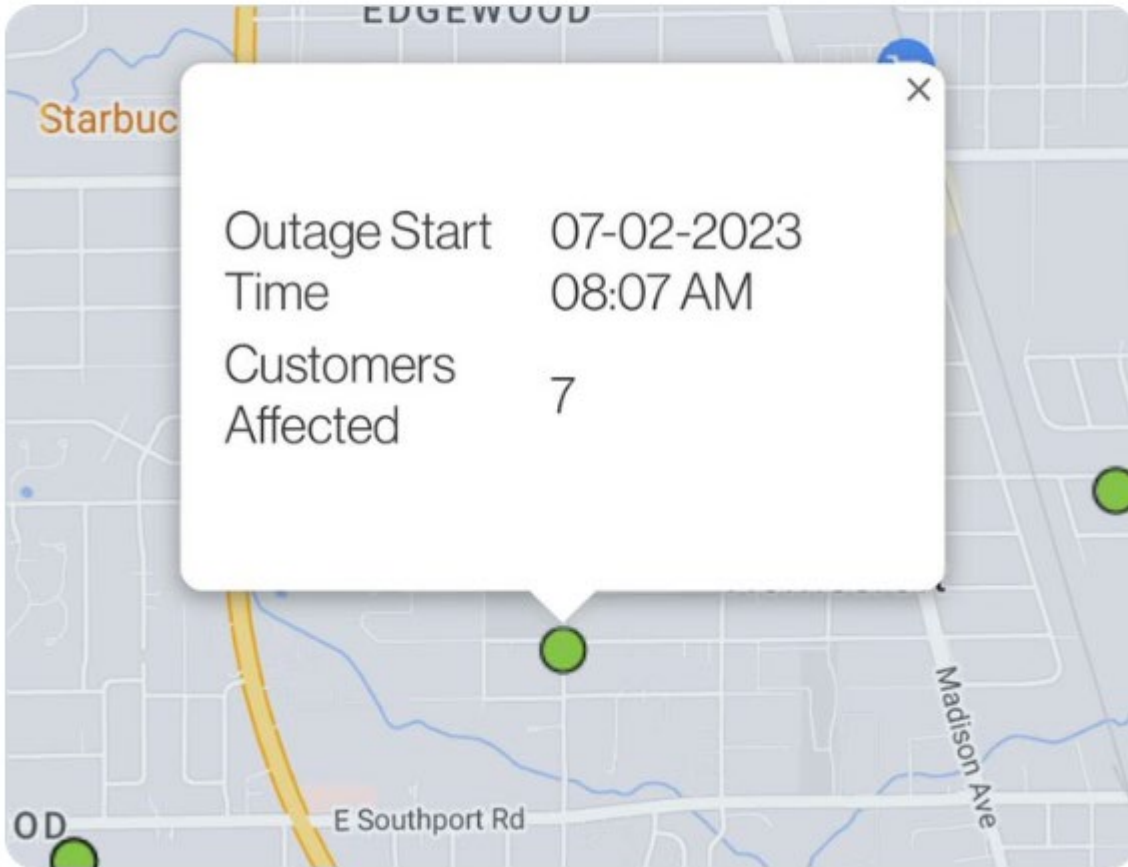


tori X
@gofortori



No you haven't! PLEASE we need our power. You reassigned our street as a Sunday outage but we have been without power for SIX DAYS

Please turn your attention to our street!!!! We are NOT A SUNDAY OUTAGE we haven't had power since Thursday at 3:52pm



6:56 PM · Jul 4, 2023 · 704 Views



Adam M
@SeaWasAngry



Our power that was off since Thursday was turned back on at 5pm today AND just went off again. Can someone get in touch with me over DM just like they are with the other folks who replied to your post?

8:53 PM · Jul 4, 2023 · **236** Views

Storm Response Technical Conference



October 2, 2023

aes Indiana

Agenda



- Introductions
- Storm Preparations
- Communications
- Restoration Response
- After Action Review
- Lessons Learned/Challenges
- Feedback on 170 IAC 4-1-23
- Discussion of Consolidation
- Closing Remarks

AES Indiana Presenters



Ken Zagzebski
President, Utilities



Mike Holtsclaw
Director, Power Delivery
Operations



Brandi Davis-Handy
Chief Customer Officer



Roderick Conwell
Senior Director T&D Ops



Kathy Storm
VP, T&D Operations



Chad Rogers
Director, Regulatory

AES Indiana

Service Territory Counties Served

Service Territory:

528 square miles in Marion County and portions of 9 surrounding counties

Transmission:

458 circuit miles of 345 kV line
407 circuit miles 138 kV line
3,310 steel structures

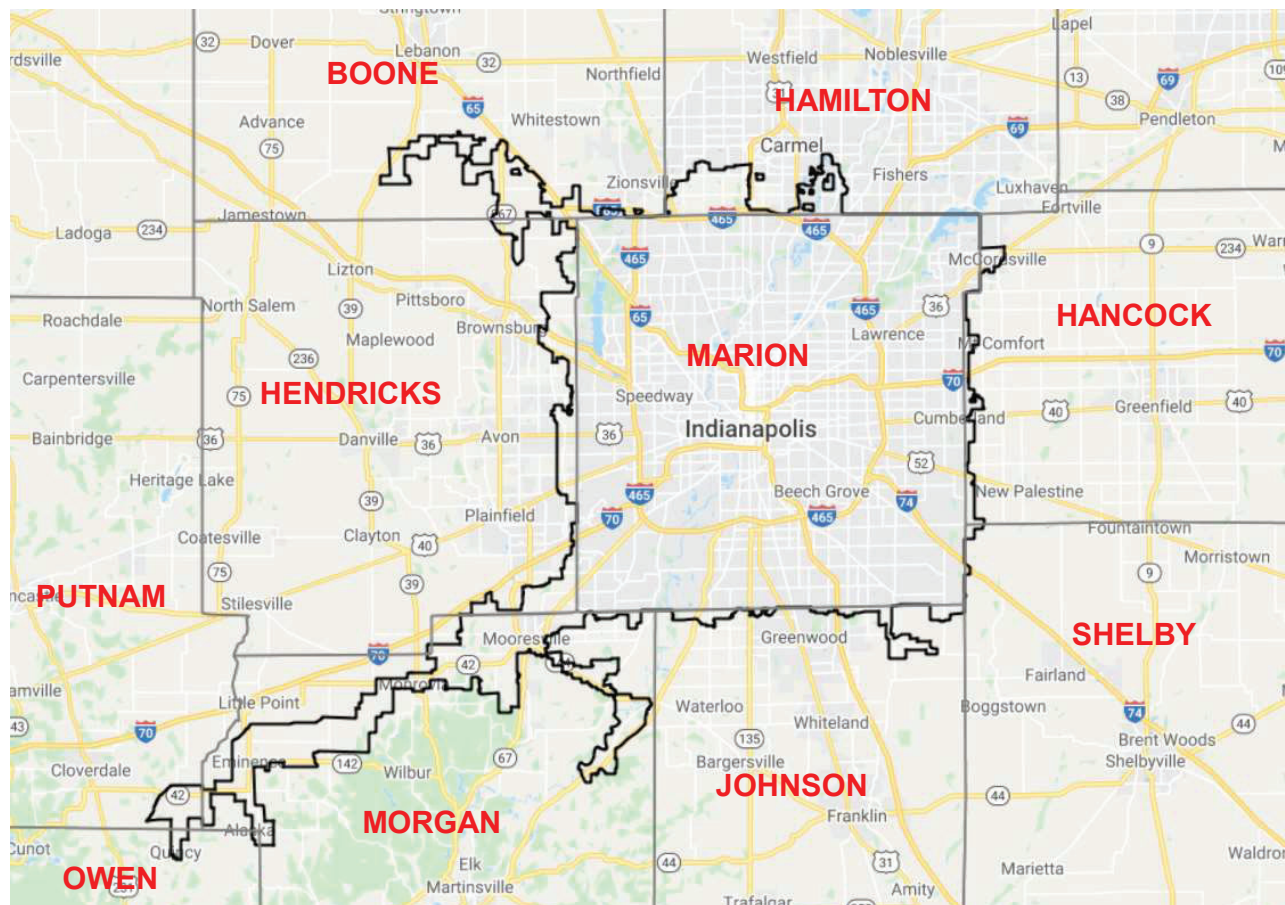
Distribution:

6,119 circuit miles of OH (4, 13 & 34 kV)
5,059 circuit miles of UG cable
163,000 poles (216,000 including joint use)
93,300 transformers

Substation:

187 Substations

- 73 transmission substations
- 114 distribution substations



Definitions



- **Incident** – An outage event affecting a device that involves 1 or more customers. It will require AES Indiana to dispatch a truck to investigate and execute repairs as needed. Outage incidents in the Outage Management System (OMS) are created from:
- Customer phone call, Interactive Voice Response (IVR) or customer talking with a Customer Service Representative (CSR)
 - On-line Web outage notification
 - Advanced Metering Infrastructure (AMI) meter loss of power notification
- **Connectivity** – Within our OMS systems, a customer is mapped to their account, then to their AMI meter, then to a transformer, then to the upstream protective devices, then to the mainline primary, finally to the substation breaker that serves a customer

Storm preparation

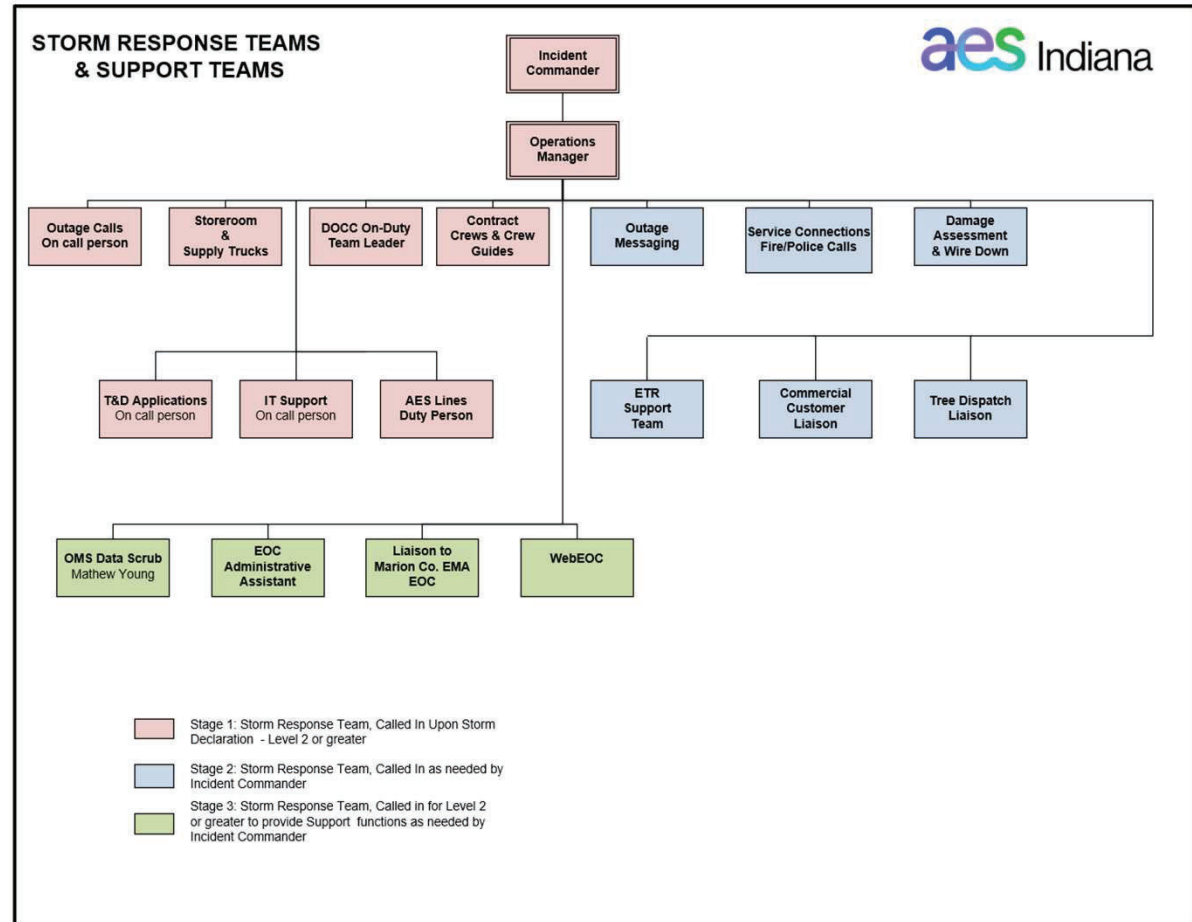


IURC Question:

When weather reports indicate your service territory may be affected by incoming storms, what work is done proactively to prepare with your team and your contractors?

Storm preparation Storm Teams

- AES Indiana utilizes four dedicated On-Call Storm Teams
- They are on a four-week rotation, with one team being the primary each week, another is the backup
- They have primary responsibility for monitoring outages and system conditions throughout the week
- In a storm event, they are the initial management response team
- They triage the outages and storm damage to determine what resources will be needed and to initiate activating those in resources
- They implement the appropriate Emergency Response Plan organization



Storm preparation – Defined storm levels

Storm Level determines storm response organization structure from Storm Response Plan

Level 1

- Less than 10,000 customers affected
- Restoration expected to be less than 24 hrs.
- AES Crews & Local Contractors

Level 2

- Greater than 10,000 customers and < 10% (10,000 to 52,000)
- Restoration expected to take 24-48 hrs.
- AES Crews & Contractors, may use Mutual Assistance

Level 3

- Greater than 10% and < 50% of customers affected (52,000 to 260,000)
- Restoration expected to be greater than 48 hours or more.
- AES Crews, Contractors & Mutual Assistance

Level 4

- Greater than 50% of customers affected (260,000 or more)
- Restoration expected to take 4-5 days or more
- AES Crews, Contractors & Mutual Assistance

Storm preparation

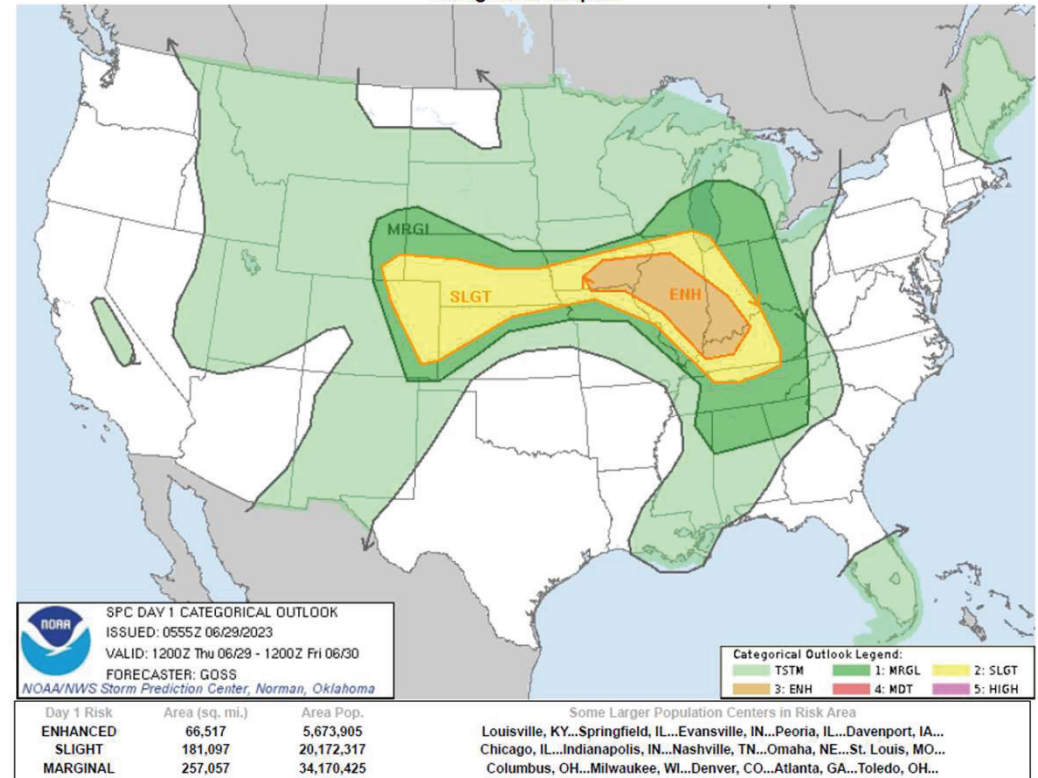
Monitoring Weather

- AES Indiana actively monitors 7-Day forecasts from the National Weather Service (NWS) & Private Weather Forecast provider
- Monitors Convection Forecasts from the NWS Storm Prediction Center (SPC) for early indications of a threat of severe weather 3 or more days out
- On Tuesday 6/27 the SPC Day 3 forecast was showing a Marginal Risk for severe weather on Thursday for most of Indiana, on Wednesday 6/28 this was upgraded to a Slight Risk
- On Thursday morning 6/29 the SPC Day 2 forecast had added an Enhanced Risk area to the southwest of Marion County back into Illinois

Jun 29, 2023 0600 UTC Day 1 Convective Outlook

Updated: Thu Jun 29 05:55:06 UTC 2023
Probabilistic to Categorical Outlook Conversion Table

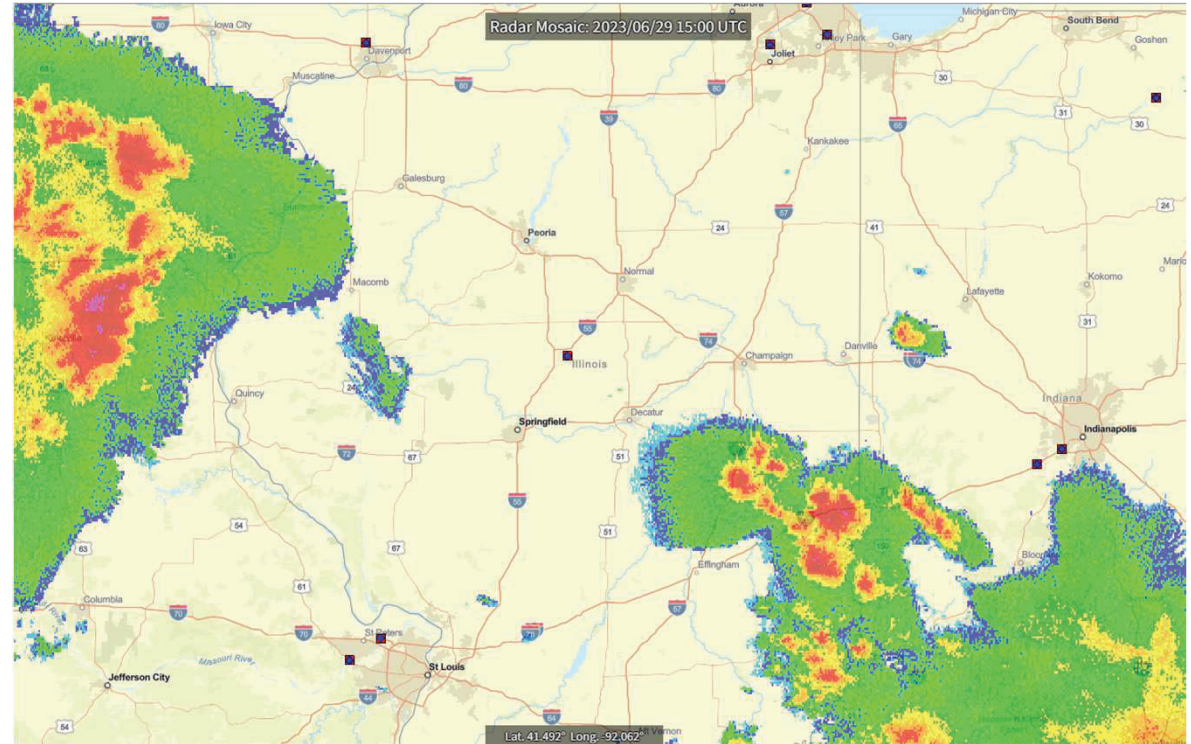
Categorical Graphic



Storm preparation

6/29

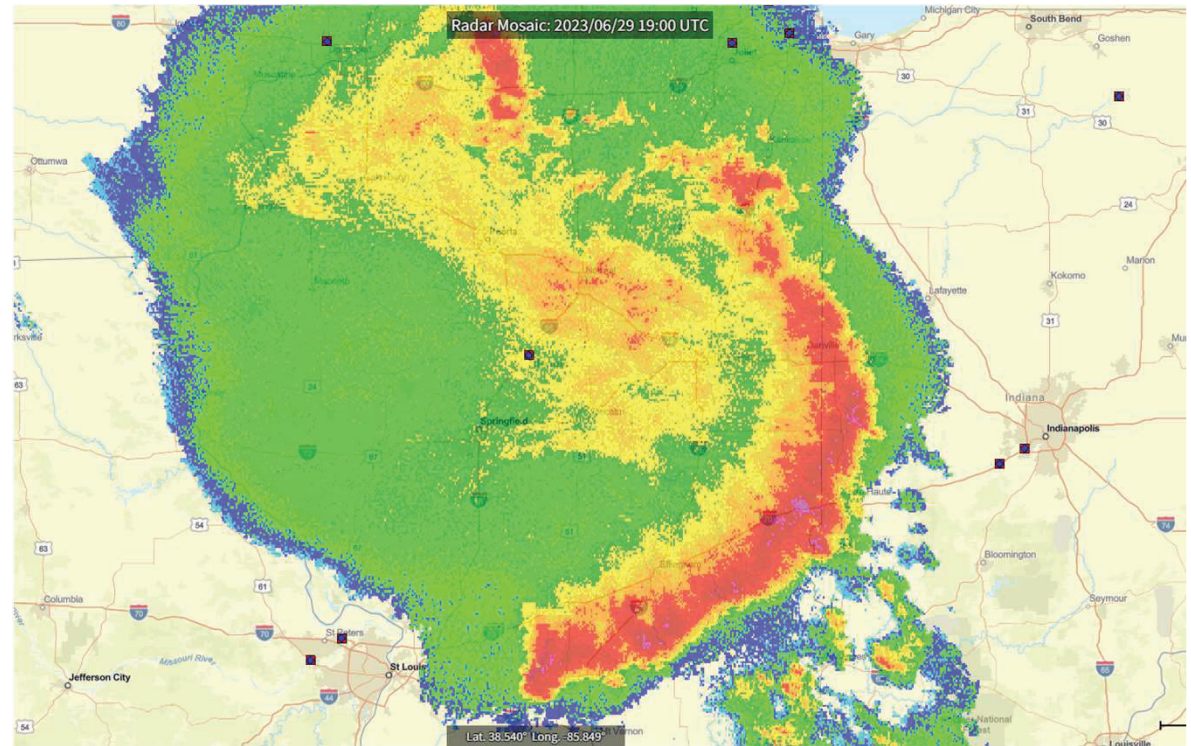
- AES Indiana monitors the long-range radar looking for developing storms
- Early Thursday morning, radar showed storms beginning to develop over Iowa
- At that time storms were rotating to the southeast and were expected to pass to the southwest of central Indiana
- Storm Leadership made the decision to hold 30 crews into the evening
- 19 AES Indiana crews and 13 contractor crews on property were notified that we would be holding them in anticipation of possible storms later in the afternoon
- All contractor crews were notified not to go home if it started raining, they were to hold at their reporting sites and await instructions



Radar at 11:00 AM

Storm preparation 6/29

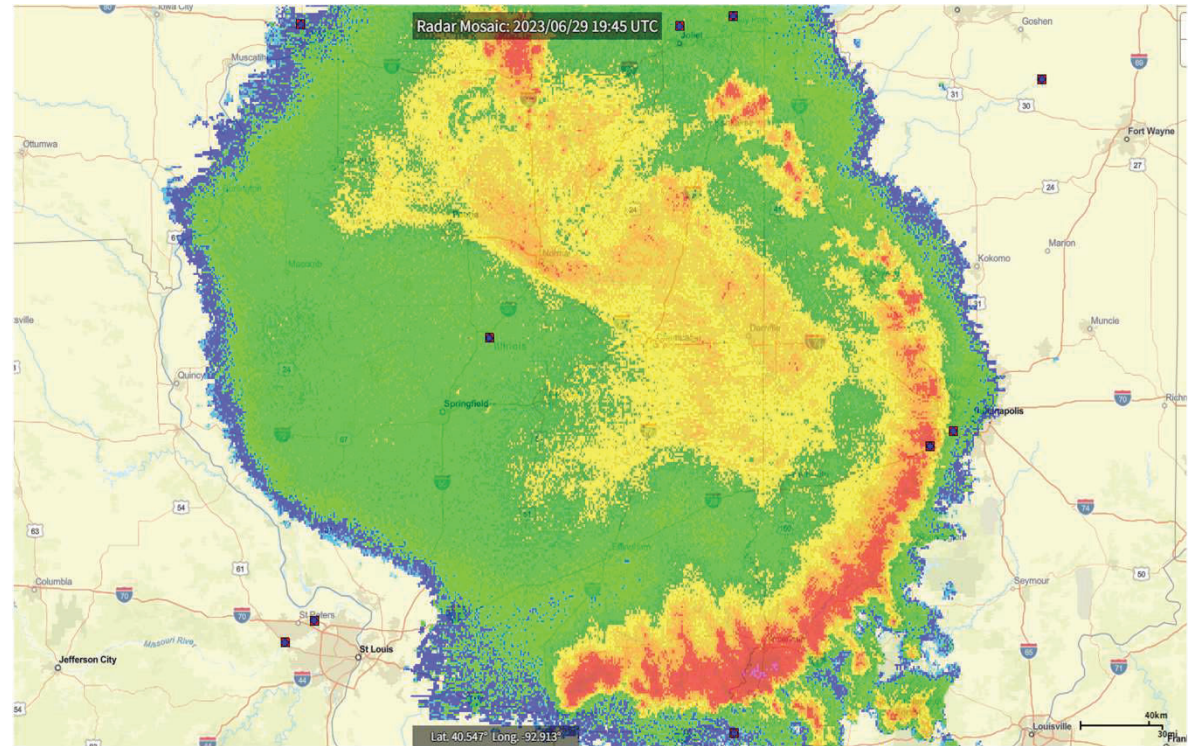
- AES Indiana continued to monitor the long-range radar as storms moved across Illinois
- The storm developed a bow along the leading edge and was now moving in an easterly direction
- Per NWS a bow generally indicates that the storm is moving rapidly and can be an indication of strong winds out ahead of the storm front
- Director of Transmission & Distribution (T&D) Operations informed Storm Team that the storm had just passed through Terre Haute with very strong, gusty winds and was very fast moving



Radar at 3:00 PM

Storm preparation 6/29

- Marion County was under a Severe Thunderstorm Warning for damaging winds
- Radar was showing the intensity of the storm was decreasing but still had a very distinct bow on the leading edge
- Indianapolis Airport reported a 70 MPH wind gust
- By 4:30 PM the storm had passed through the AES Indiana service territory
- Restoration efforts began as soon as the weather had cleared the western side of Marion County



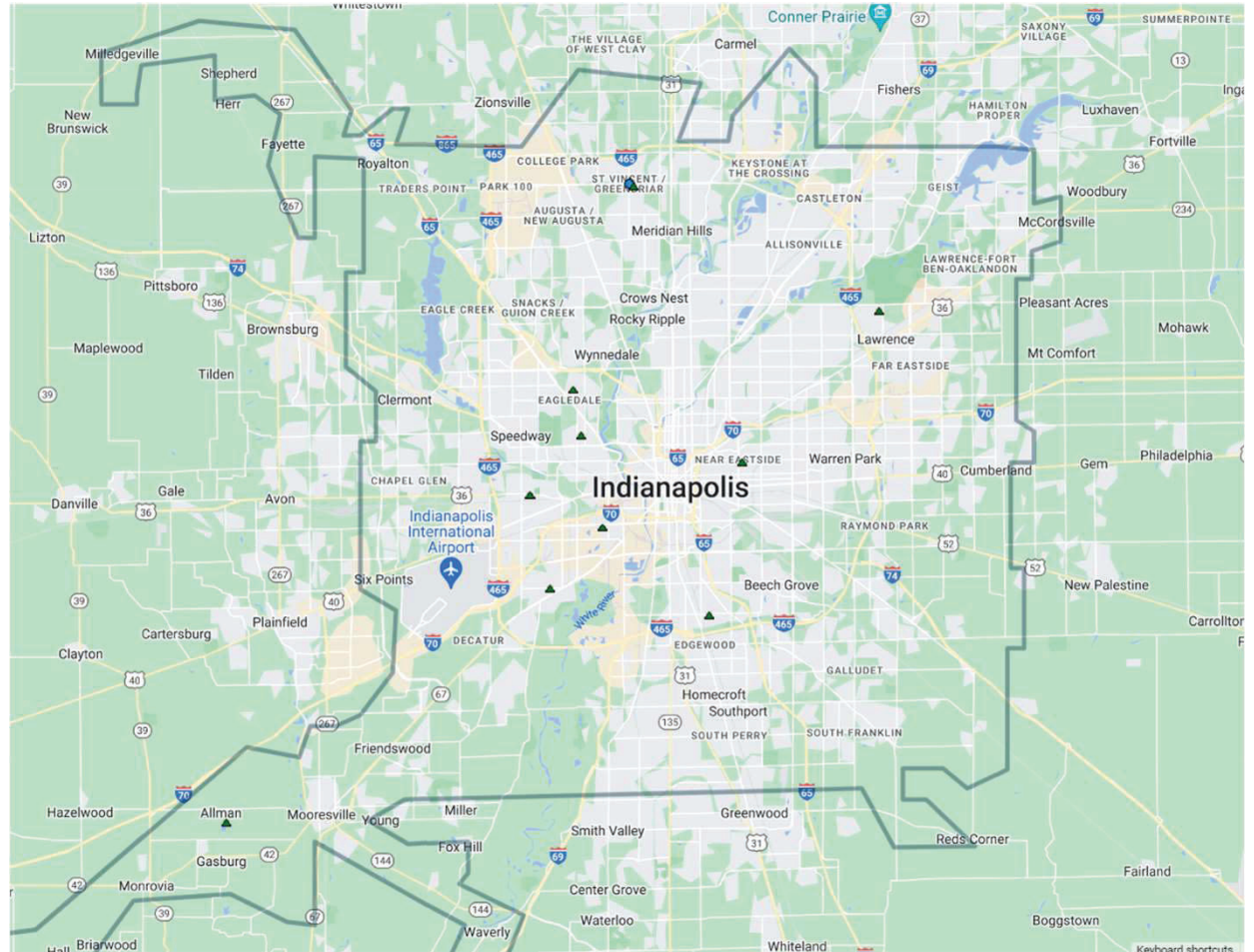
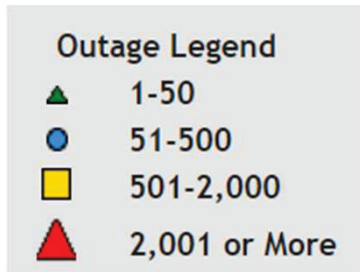
Radar at 4:00 PM

OMS snapshot @ 3:45 PM on June 29th

Incidents: 16

Customers: 100

Prior to storm's arrival, OMS was showing minimal outages

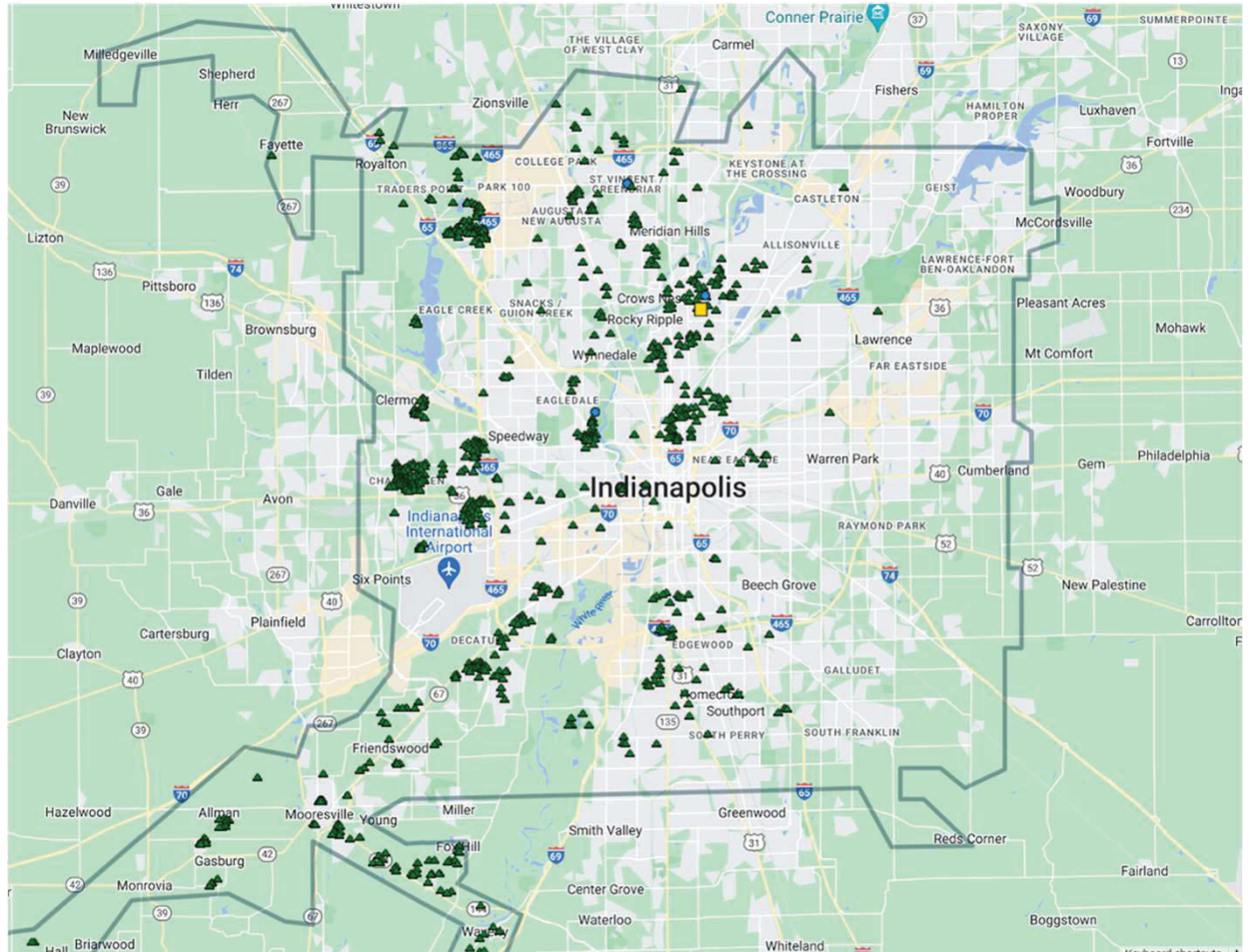
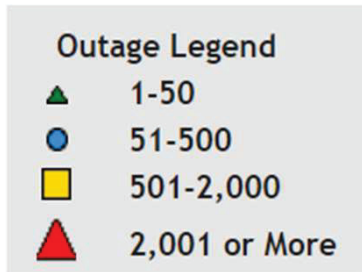


OMS snapshot @ 4:00 PM on June 29th

Incidents: 757

Customers: 3,196

Storm is now moving across the system from west to east; OMS was showing outages beginning to come in

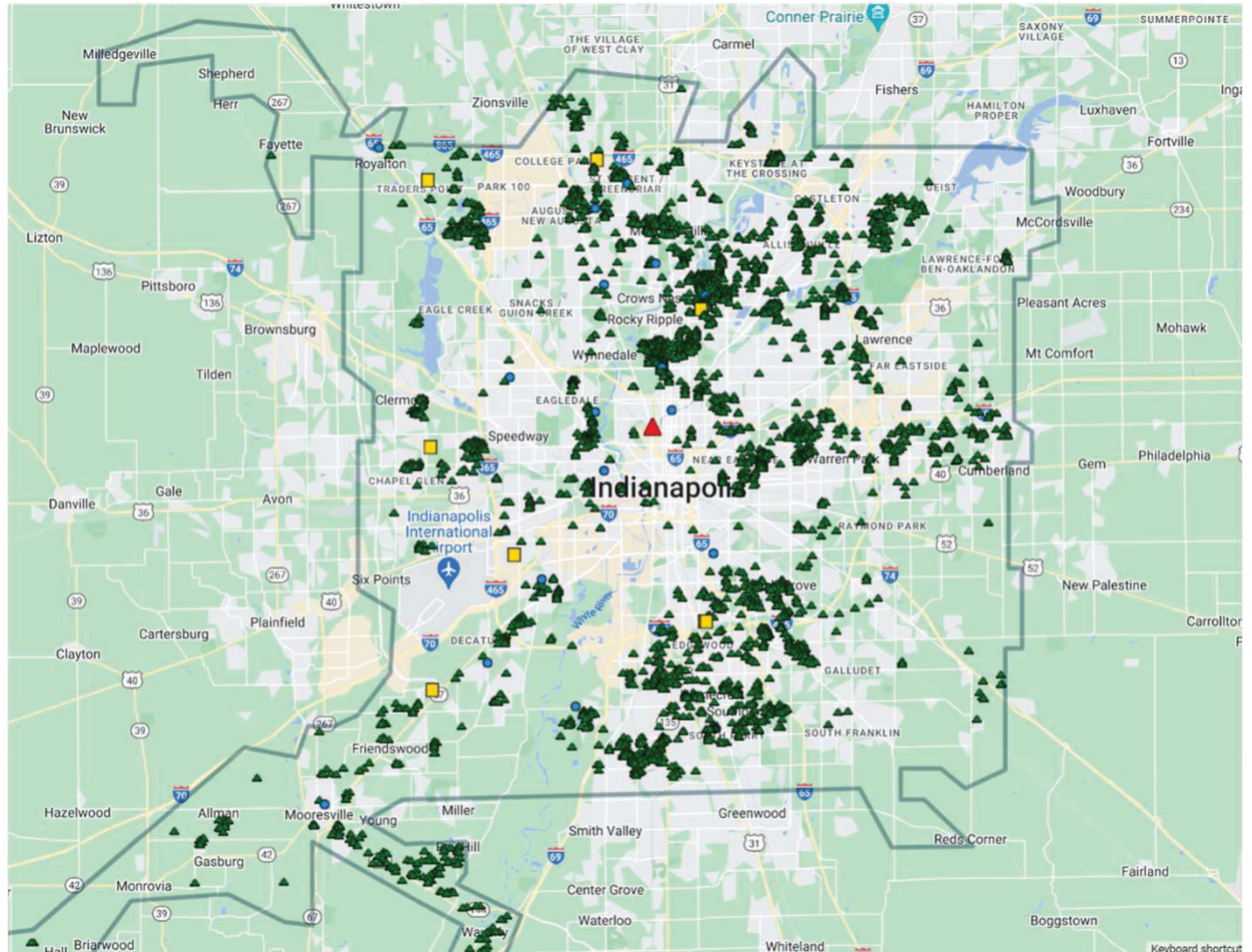
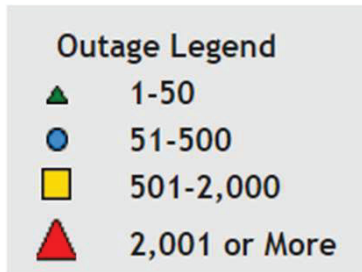


OMS snapshot @ 4:15 PM on June 29th

Incidents: 2,559

Customers: 19,249

Storm is almost through the county. OMS was showing volume of outages was increasing rapidly

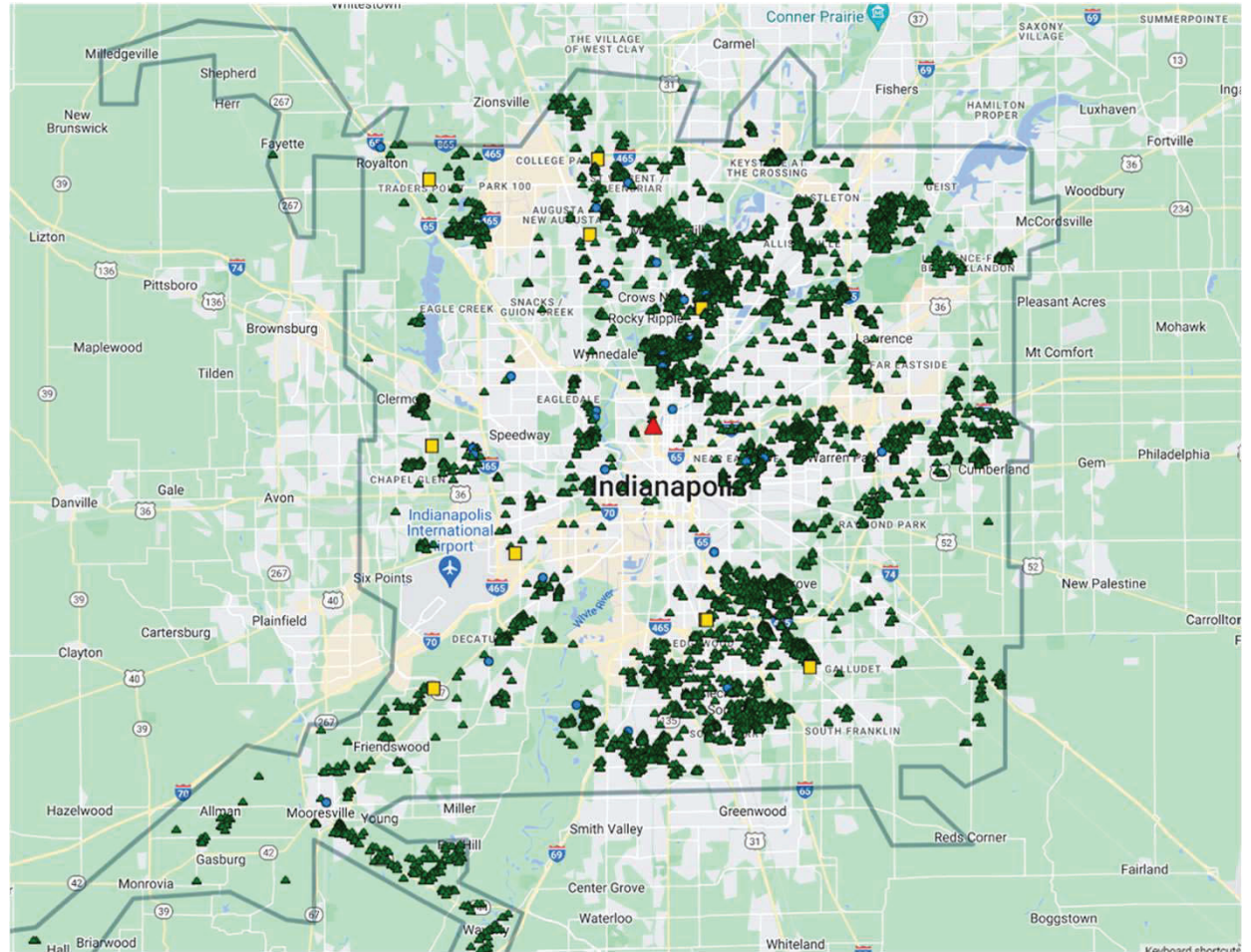
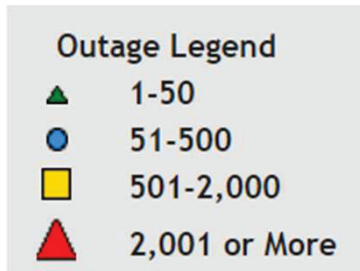


OMS snapshot @ 4:30 PM on June 29th

Incidents: 3,891

Customers: 26,835

Storm is through the county; OMS was showing volume of outages was still increasing rapidly

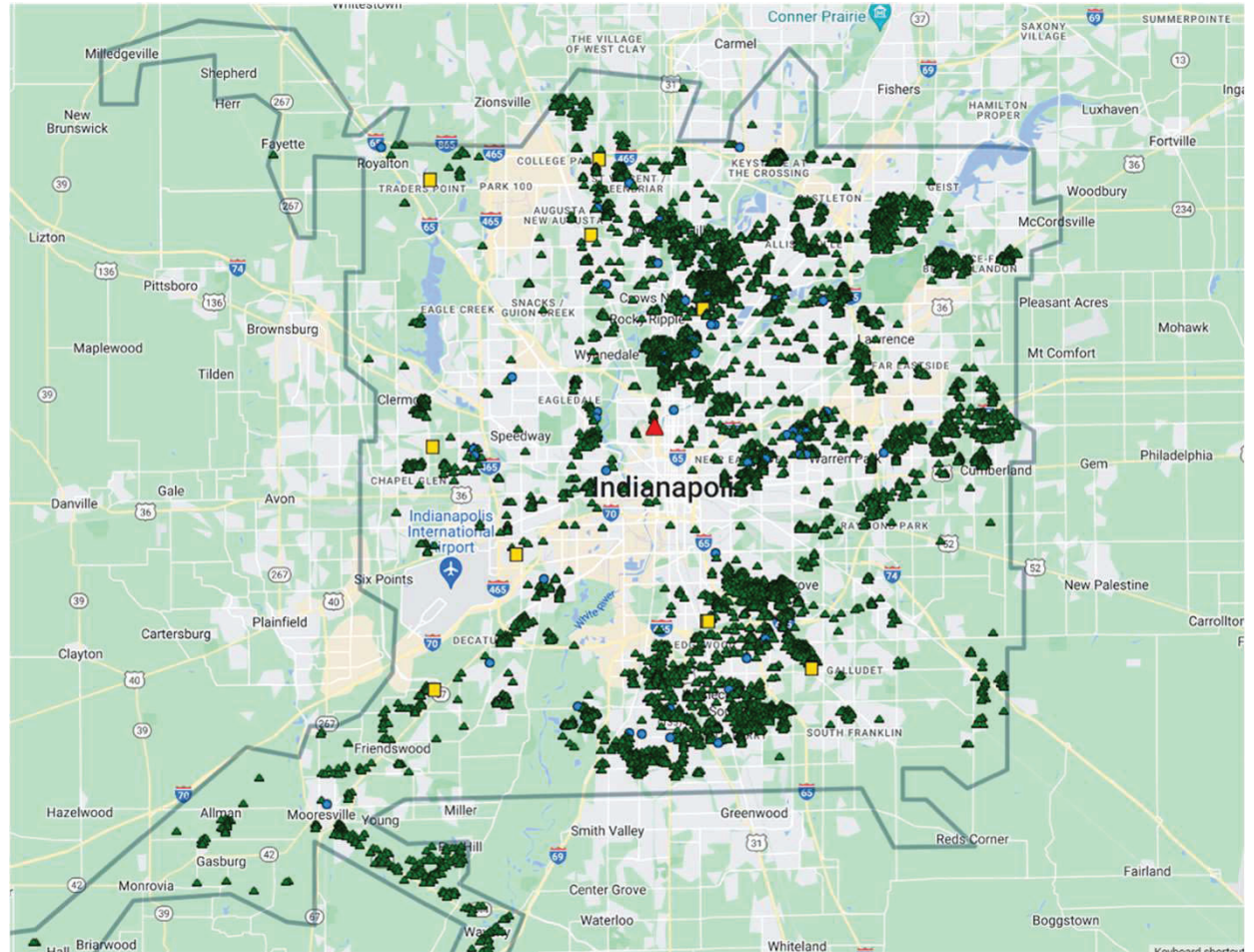
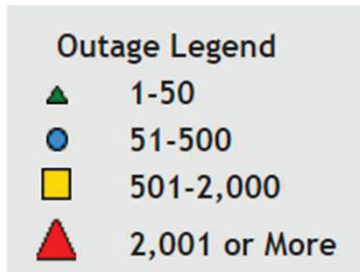


OMS snapshot @ 4:45 PM on June 29th

Incidents: 4,571

Customers: 31,547

OMS was still showing volume of outages was increasing rapidly

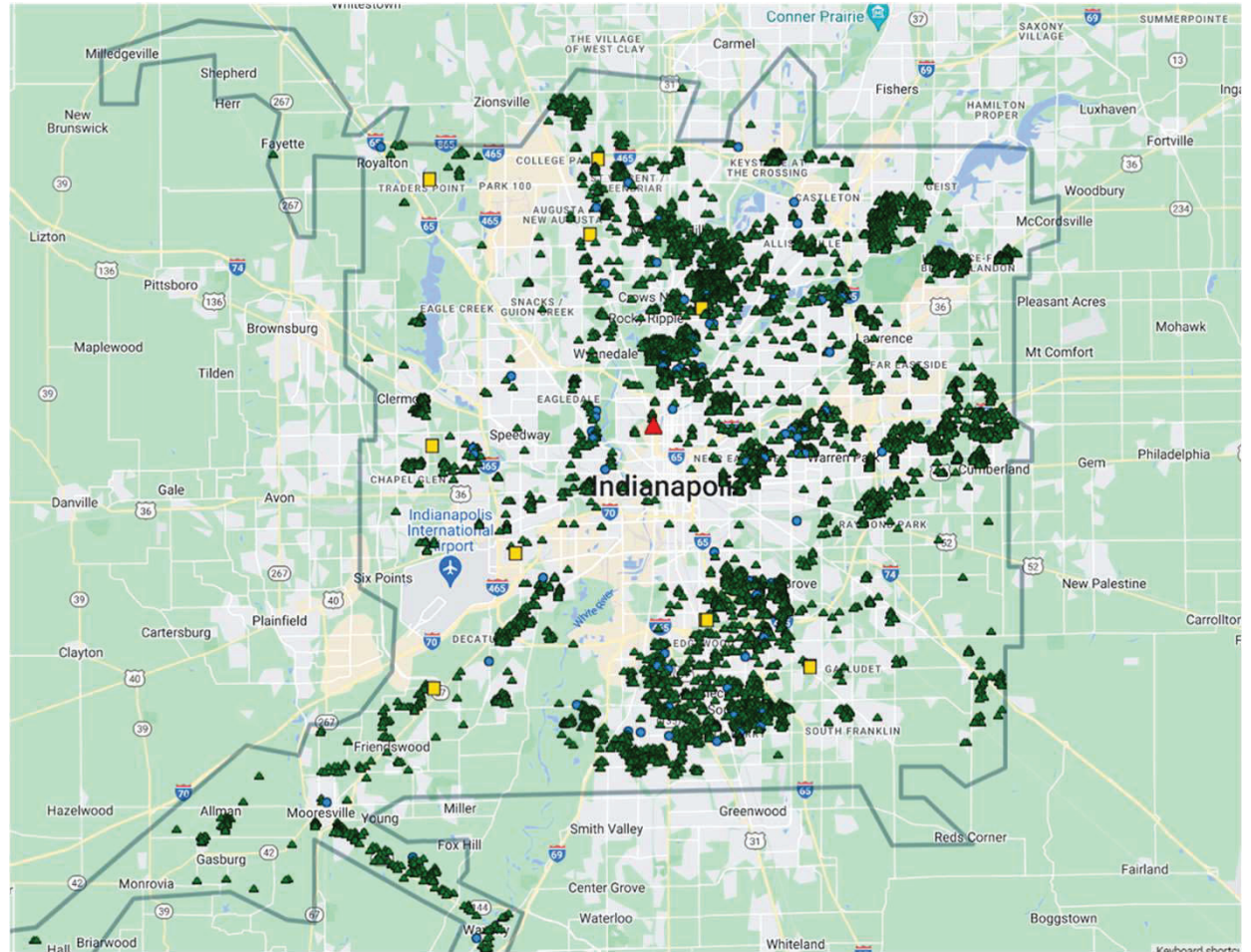
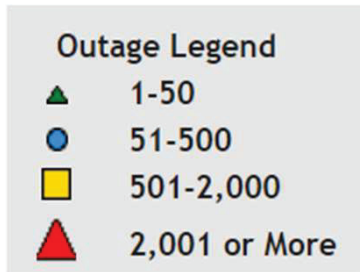


OMS snapshot @ 5:00 PM on June 29th

Incidents: 4,844

Customers: 35,376

OMS was starting to catch up,
incident count slowing down but
number of customers without power
was still increasing

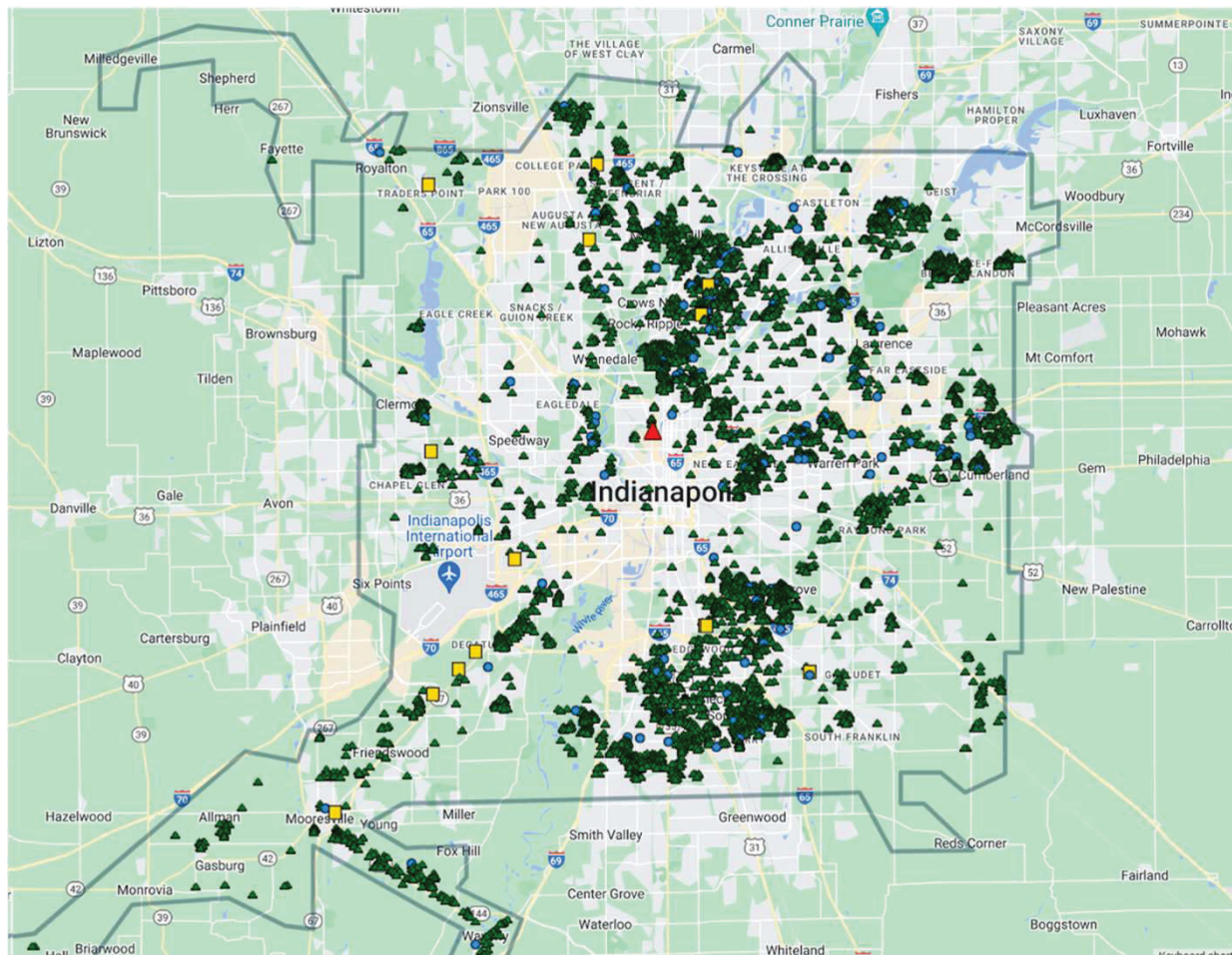
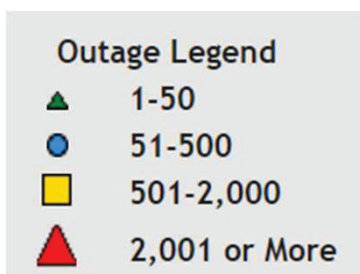


OMS snapshot @ 5:30 PM on June 29th

Incidents: 5,048

Customers: 48,272

Incident count peaks but number of customers without power was still increasing, OMS is grouping multiple smaller incidents into larger incidents

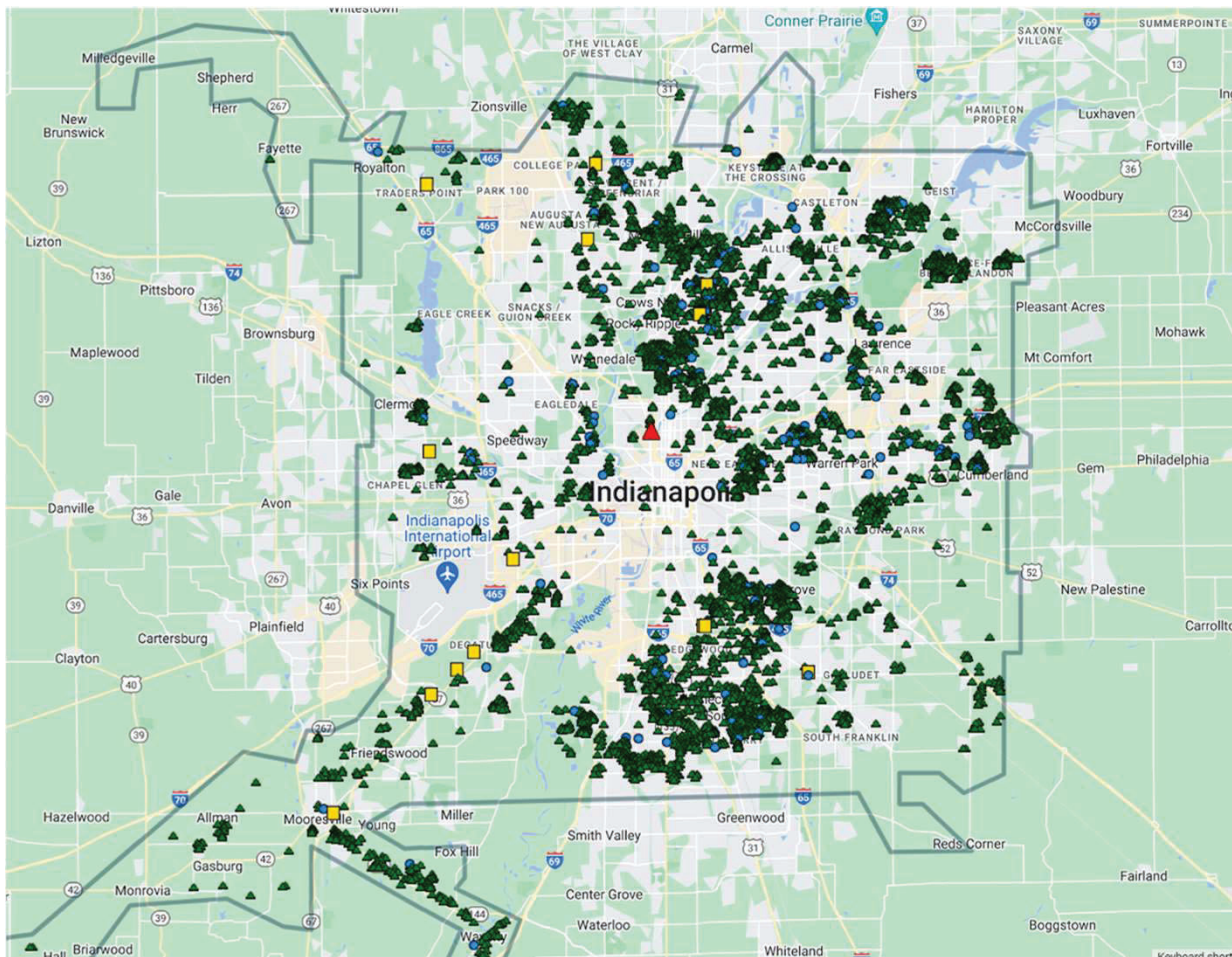
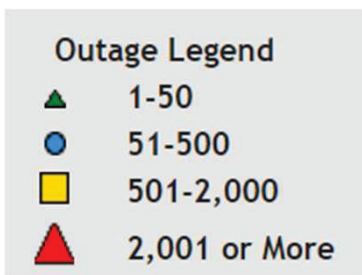


OMS snapshot @ 6:00 PM on June 29th

Incidents: 4,531

Customers: 57,012

OMS grouping continues as incident count is going down and customer count goes up.

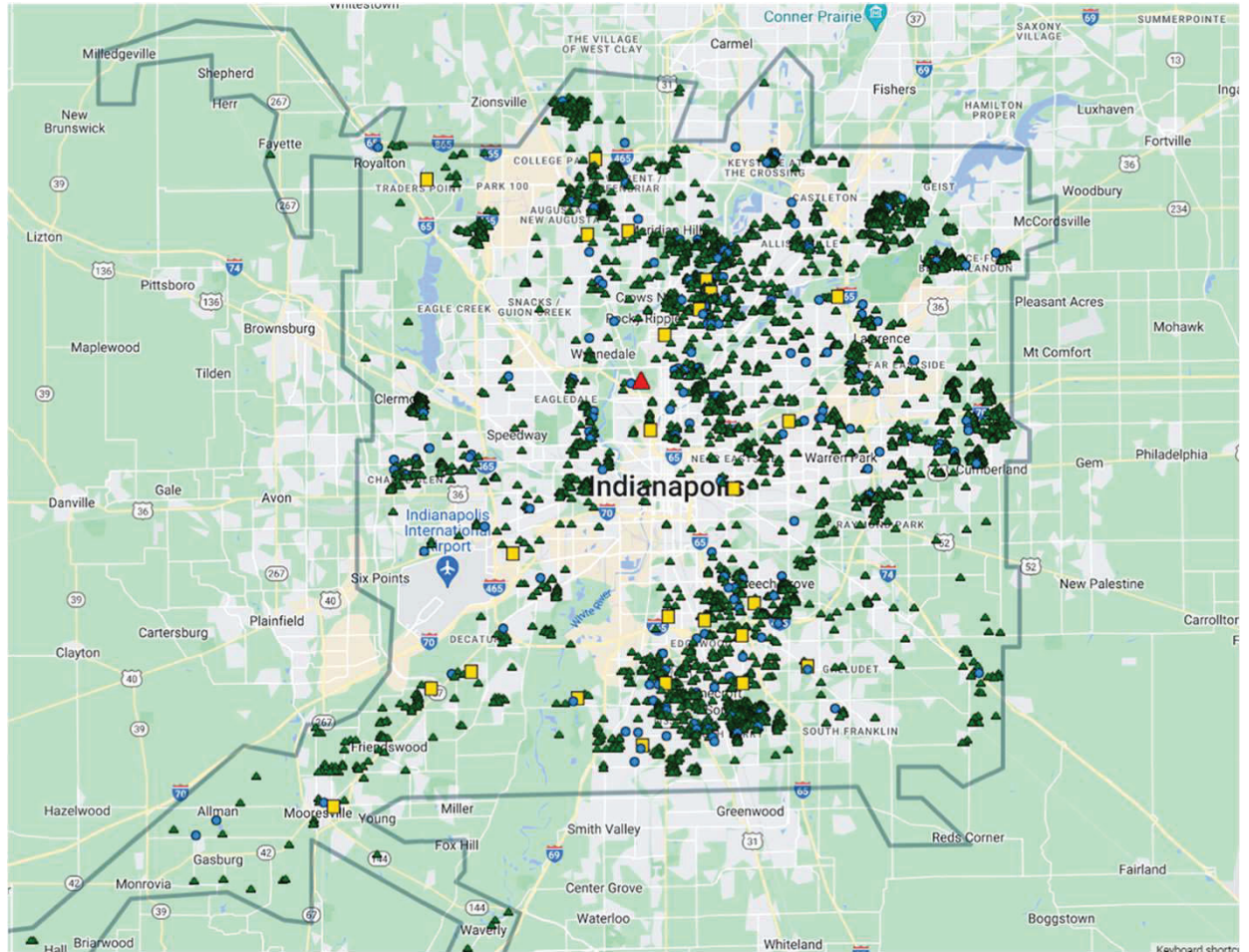
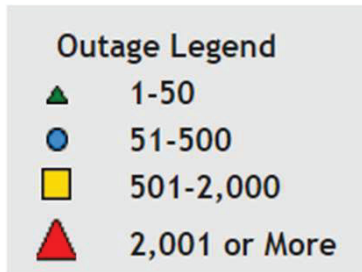


OMS snapshot @ 6:30 PM on June 29th

Incidents: 3,392

Customers: 69,149

OMS grouping continues as incident count is going down and customer count goes up.

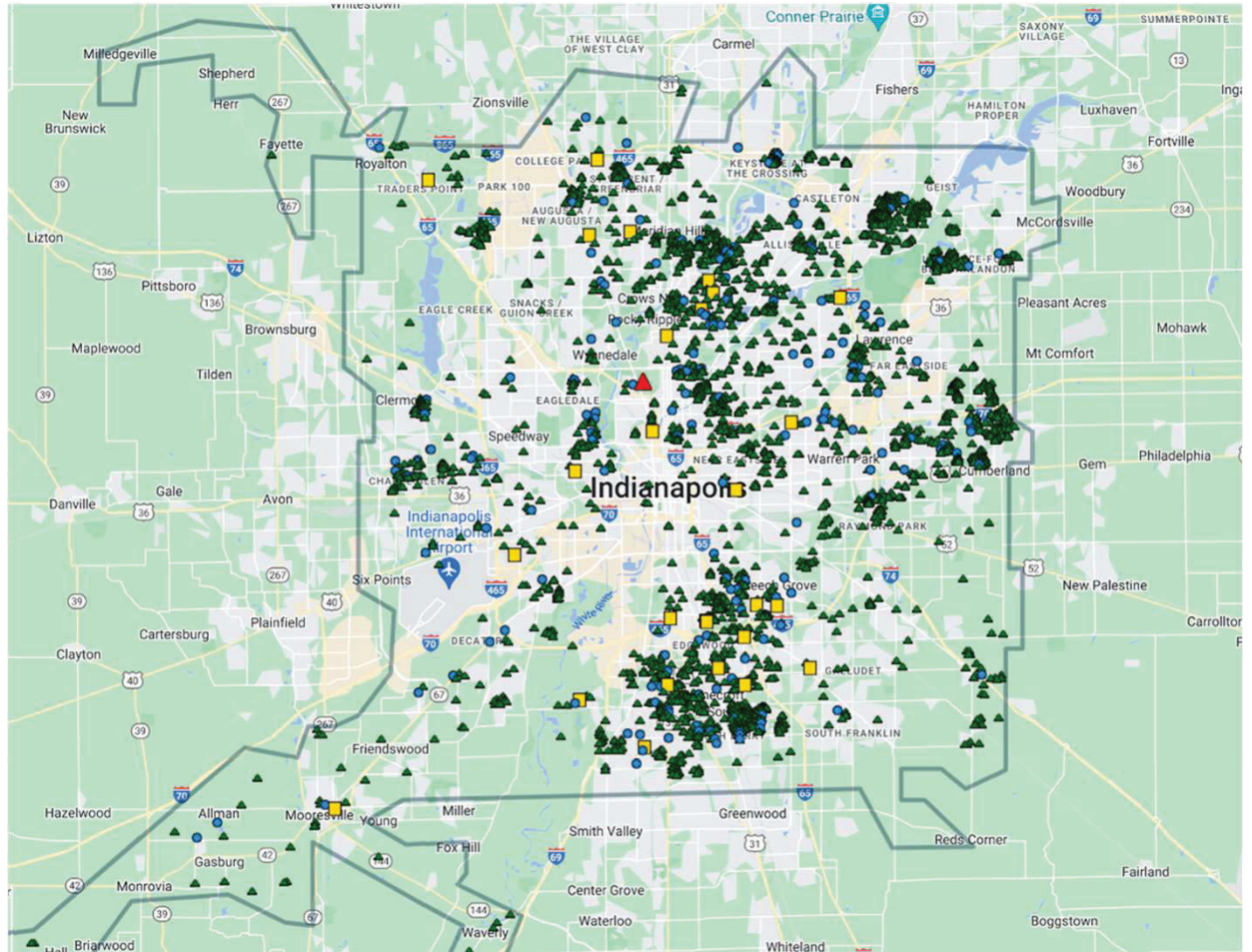
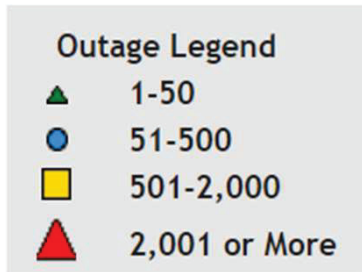


OMS snapshot @ 6:45 PM on June 29th

Incidents: 3,000

Customers: 71,765

OMS grouping almost caught up as we see smaller changes in incident count and customers without power.

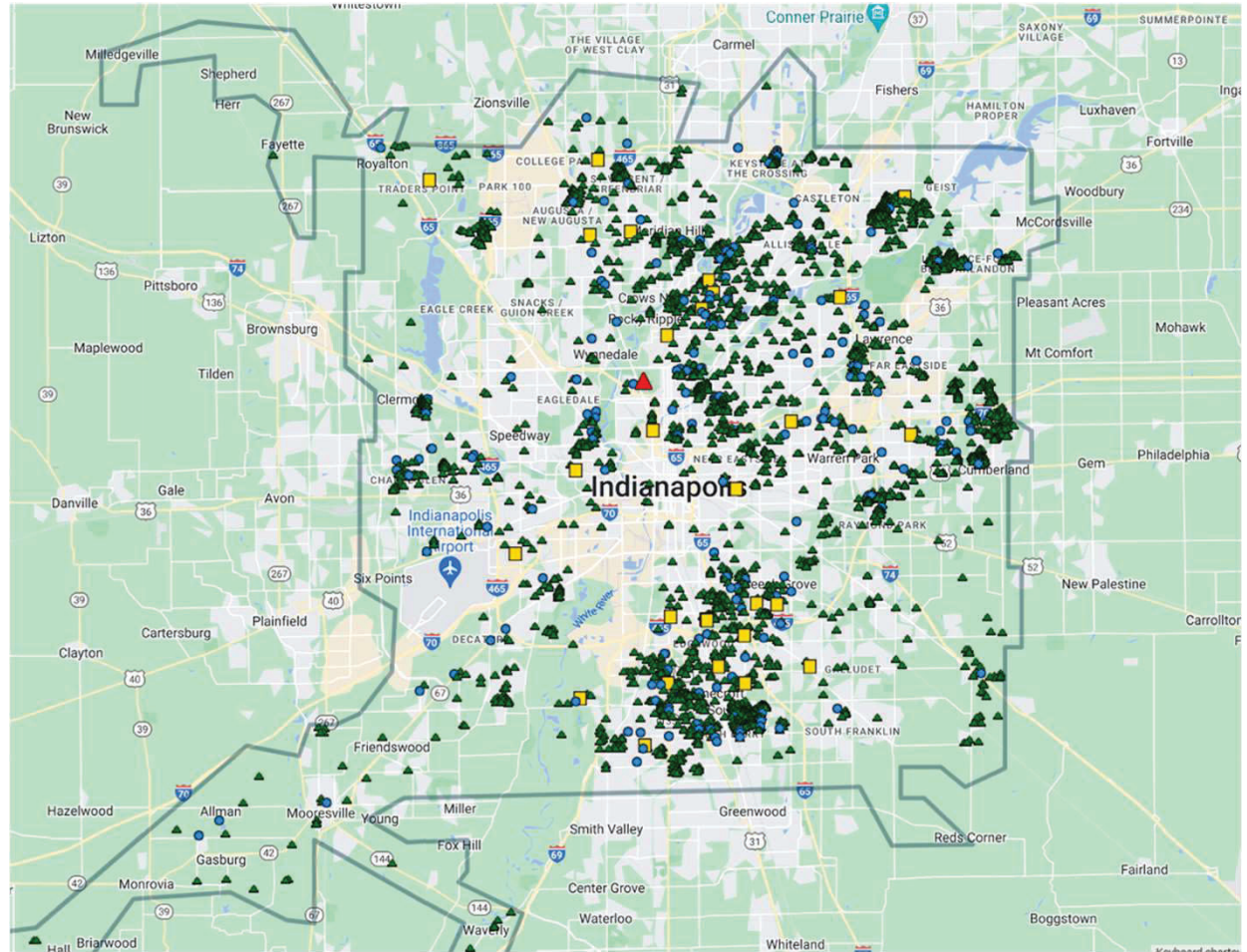
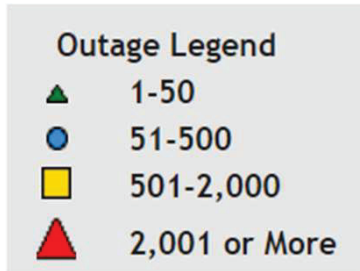


OMS snapshot @ 7:00 PM on June 29th

Incidents: 2,833

Customers: 72,142

OMS grouping has nearly caught up with the initial outage calls that came in. Storm Command now has a better idea of what they have.



Total Restoration Resources Deployed



1,123 personnel worked the restoration from June 29th through July 4th:

On Property on June 29th when the storm hit:

- AES & Contractor Line Personnel 429
- Local Vegetation Personnel 166
- AES Support Resources 167
- AES Customer Service 160

Outside Resources Brought In:

- Contractor Line Personnel 92
- Vegetation Personnel 109



Communications



IURC Question:

How did you communicate with customers before, during, and after the storms?

Keeping customers informed is a priority

Our approach

During an emergency, AES Indiana implements its crisis communication plan and leverages several tools to communicate with customers including website, email, social media, media relations, and text alerts.

aes AES Indiana @AESIndiana

We have received a lot of inquiries about our power restoration priorities and process. We hope this answers some of your questions. Visit aesindiana.com/storm-restorat... for more information or email aesindianapublicaffairs@aes.com for questions or concerns.

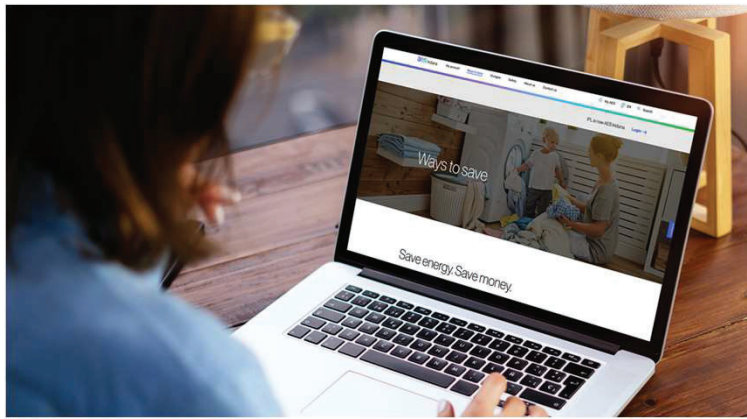
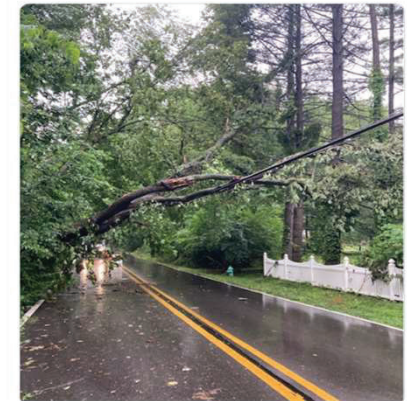
Power restoration priorities

-  Restoring transmission lines and substations
-  Prioritizing critical community needs like hospitals, police and fire stations, water pumping and sewer lift stations and nursing homes
-  Restoring primary circuits serving neighborhoods or areas with the greatest number of customers
-  Finally, the homes and businesses that have damage that is unique to just them or a few neighbors

aes Indiana

aes AES Indiana @AESIndiana

Our line crews, tree crews, underground crews, and office personnel continue to respond to severe storm damage from Thursday. Noon update: crews have restored power to nearly 50,000 customers and are continuing to work safely to restore power to the 20,000 customers w/o service.



54° FOX 59 WATCH NOW



WEATHER
AES: Severe storm repairs could take 'multi-day effort'

Power Outage message on yellow warning road sign with stormy sky

by: [Mike Coutee](#)
Posted: Jun 30, 2023 / 05:56 AM EDT
Updated: Jun 30, 2023 / 08:12 AM EDT

AES Indiana storm update






Indianapolis — AES Indiana, a subsidiary of The AES Corporation (NYSE: AES), is managing its storm plan and focusing on restoration efforts as we work to restore power to approximately 67,000 customers affected by today's severe weather which produced high winds and lightning. Additional crews and contractors have been called in. AES Indiana crews will work throughout the night to repair significant damage to power lines and equipment.

As of 8:00 p.m., more than 23,000 incidents have been reported throughout AES Indiana's service territory. The severity of damage caused by fallen trees and lighting could make this a multi-day restoration effort.






AES Indiana is also monitoring the potential for more severe weather. Safety remains AES Indiana's main priority. With more storms headed to Central Indiana, customers could experience extended outage durations and are urged to have an emergency back-up plan in place. Customers can find safety and outage tips by going to www.aesindiana.com/safe-tips.

Social media will be used to update customers throughout this restoration efforts process.



Customers received storms updates in a variety of ways

-  **Social media:** Immediately after storm hit around 4:00 p.m., initial messages were sent out on social media encouraging our customers to keep safety first, stay away from downed lines and to report outages.
-  **Media:** By 8:30 p.m., media alert released and Director of PR did a number of interviews with local reporters.
-  **Email:** By 9:15 p.m., email sent to approximately 319,000 customers, alerting that due to the significant damage it would be a multi-day restoration effort.
-  **Web:** By 10:00 p.m., launched storm updates webpage to provide one-stop updates for news press releases, social media feeds, and easy access to Storm FAQs and restoration process. and social media feed.
-  **Community outreach:** Coordination with City Government on June 30 press conference and Indy Parks to identify and publicize cooling centers.

June 29

-  **Press conference:** On June 30, AES Indiana participated in a storm response press conference, alongside Indianapolis officials and public safety agencies
-  **Social media:** Through July 2, the communications team created 137 public posts, stories, tweets, and videos, resulting in over 800,000 impressions and engagements. In addition, 37 customers received direct responses and assistance in private messages.
-  **Media:** Secondary and third media alerts released.
-  **Email:** Update to opt-in residential customers regarding continued multi-day restoration efforts, number of incidents, and several safety tips.
-  **Web:** Updated with additional FAQs and with every major customer count released.

June 30 - July 2

-  **Social media:** Engagement declined dramatically as restoration efforts continued, however the communications team had 42 additional public posts and replies, resulting in ~150,000 impressions and engagements.
-  **Web:** All press releases, major count releases, and final restoration summary posted to storm updates website.
-  **Email:** July 5 - Final targeted email to customers at 4:54 pm informing them that power was restored to customers impacted by the June 29th storm and through the weekend.

July 3 - 5

Communications engaged with customers more on social media than ever before



June 29

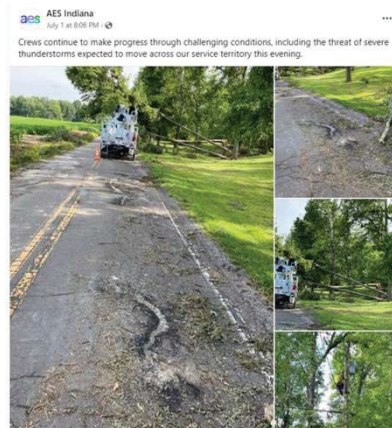
Social media posts: 41
Social media comments: 622
Impressions: 227,216
Engagement rate: 11.12%
Reactions and shares: 522

June 30 - July 2

Social media posts: 96
Social media comments: 2931
Impressions: 524,893
Engagement rate: 19.67%
Reactions and shares: 3507

July 3 - July 5

Social media posts: 42
Social media comments: 639
Impressions: 114,692
Engagement rate: 18.87%
Reactions and shares: 817



We weathered the storm, All together.



Thank you, Indy.

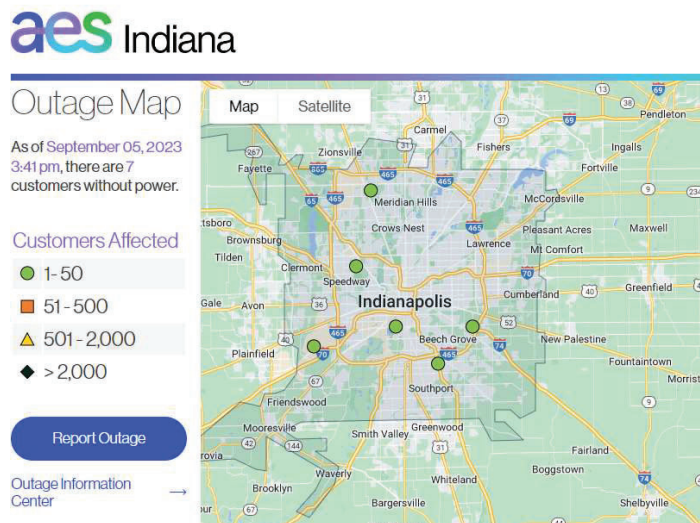


Coordination with external agencies

- AES internal storm calls throughout the day
- In contact beginning Thursday afternoon with city and state officials and staff, community partners, and Marion County Emergency Management Agency
 - 6/30: AES Liaison with EOC onsite
 - 7/1 - 7/4: Virtual daily calls with EOC Director
- Promoting cooling centers with Indy Parks

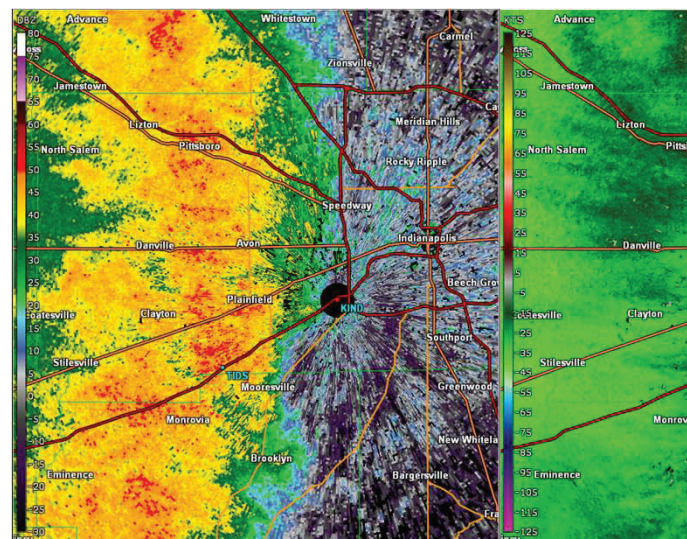


External outage map



General data

- Data pulled directly from OMS
- Refreshed and updated every 10 minutes
- Includes both storm-related and non-storm related outages



Storm command center

- Operations team tracks data separately, including all-customer, non-storm dates:
- Customers without power 6/29
- Customers without power 6/30 – 7/1
- Customers without power 7/2
- Other internal AES and all external entities use external facing outage map

Resources and mutual assistance



IURC Question:

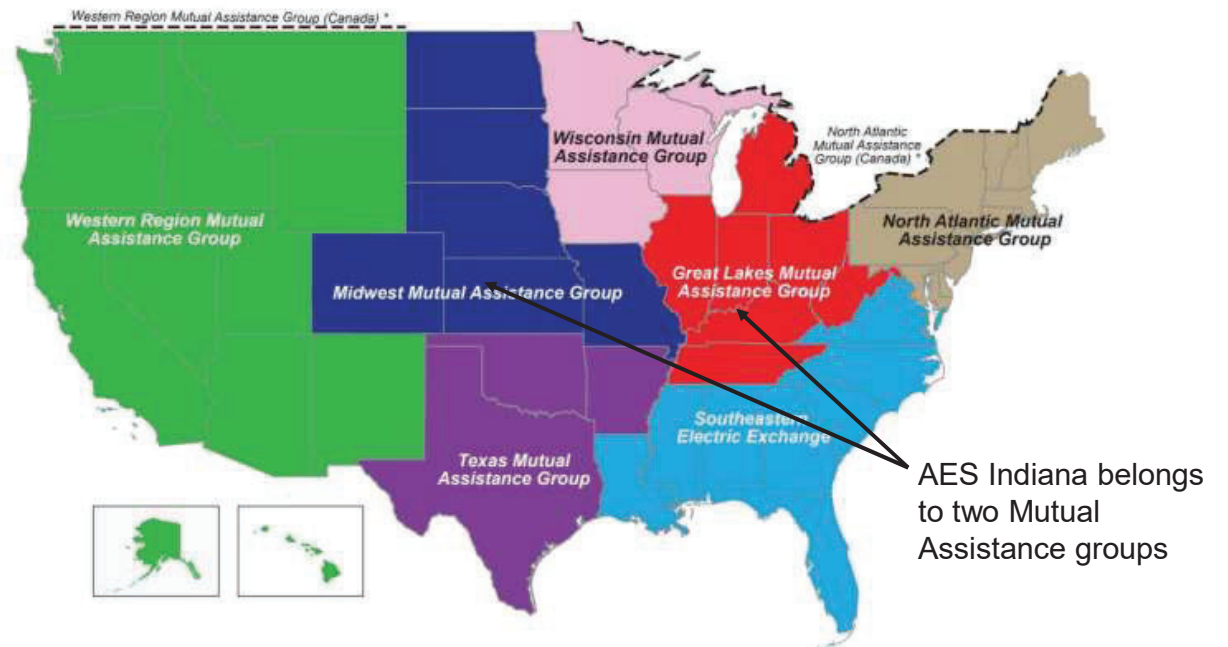
How was mutual aid between utilities a factor in your storm restoration efforts?

Resources & Mutual Assistance

Mutual Assistance is activated when additional resources are needed beyond our AES Indiana crews and the contractor crews on site for TDSIC and other daily work.

We will utilize the AES Ohio crews.

Regional Mutual Assistance Groups



Resources & Mutual Assistance

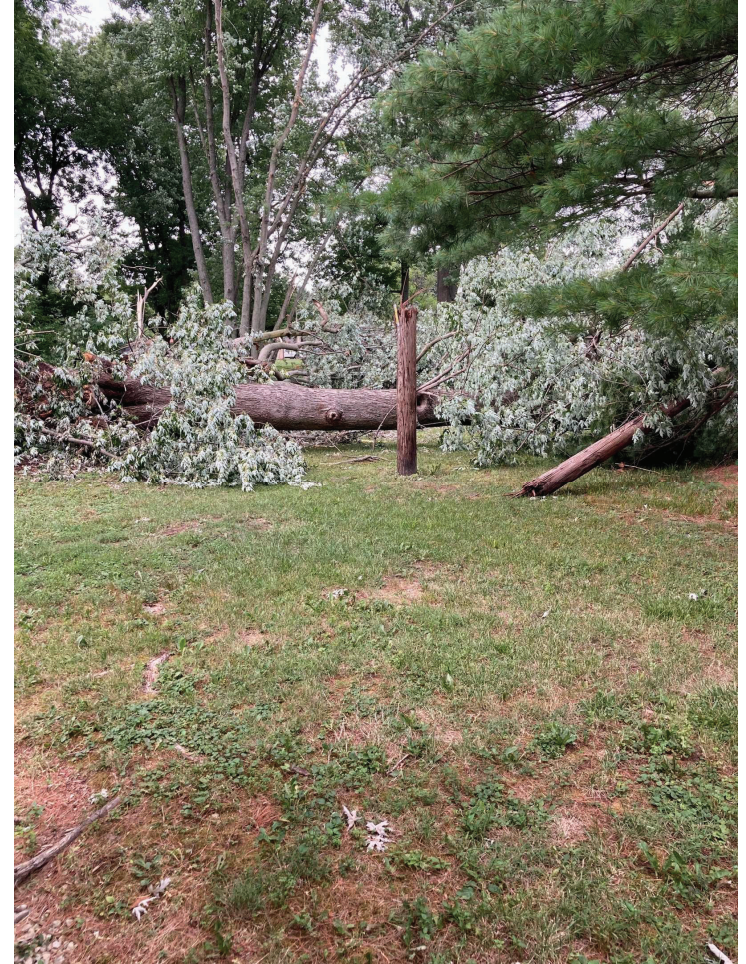
- AES Indiana began the restoration effort Thursday afternoon with **84 line crews** on property working
- On Friday, through mutual assistance resources, AES Indiana obtained **20 additional contractor crews** from Tennessee, Illinois, and Ohio from our contractors working on property
- The peak line crew resources were **104 line crews** which is more than past storm events
- The average number of crews for a Level 3 storm over the past 15 years has been **68 line crews**



Outage/Storm restoration strategy

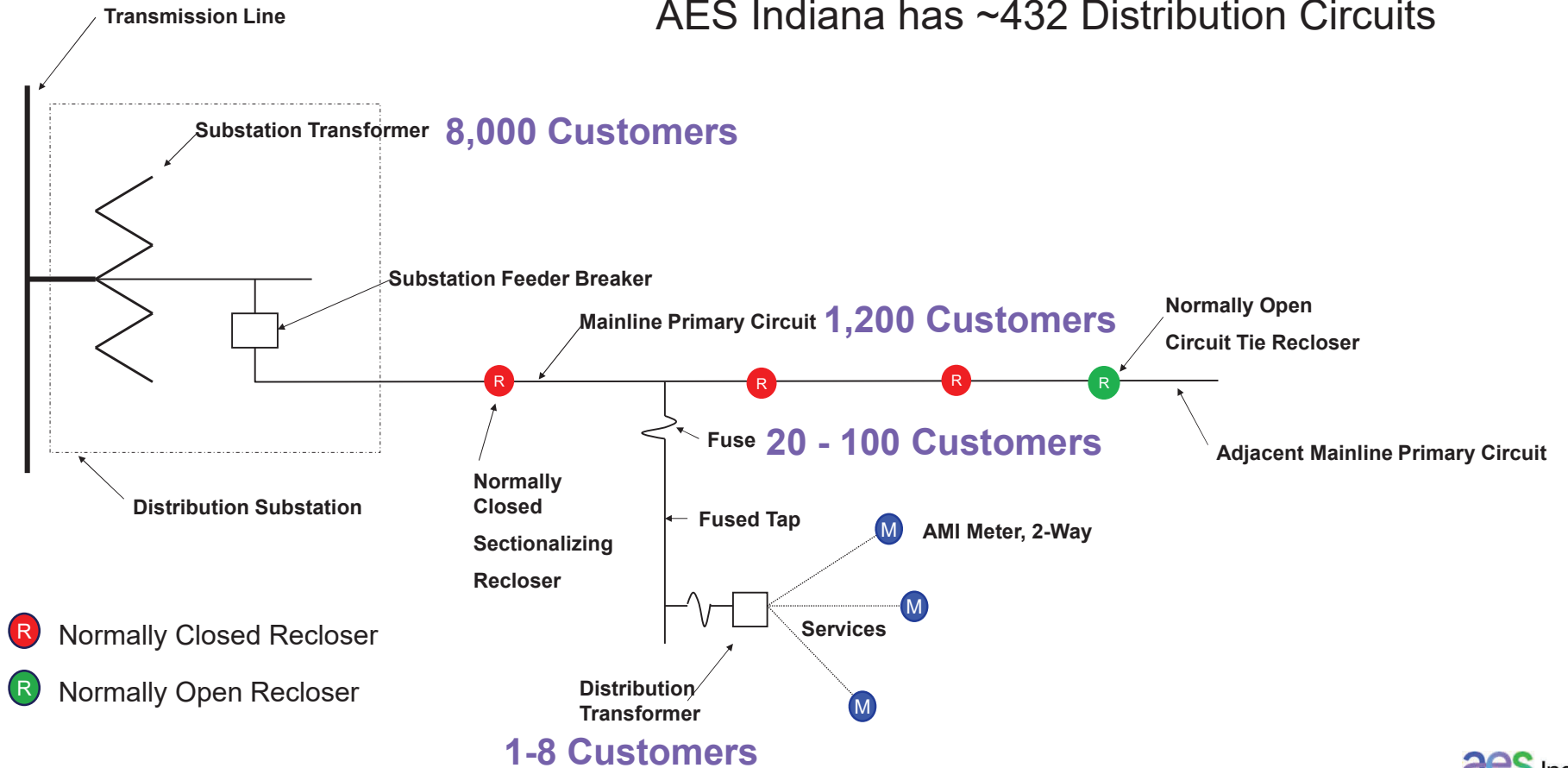
Restoration Process Priorities:

- Restore Transmission Lines & Substations
- Respond to any conditions threatening life or property such as reports of wire down
- Isolate Damage and Restore Primary Circuits that are Locked out
- Priority Given to Critical Public Safety Loads
 - Hospitals & Nursing Homes
 - Police & Fire Stations
 - Water Pumping & Sewer Lift Stations
 - TV & Radio Stations
- Work remaining incidents affecting largest number of customers to the fewest number, large fuse outages down to individual customer outages



AES Indiana – Restoration priorities

AES Indiana has ~432 Distribution Circuits



June 29th Derecho

→ Fast moving storm, moved through the Service Territory in approximately 45 minutes

→ Storm was classified as a Derecho by the NWS

According to the NWS, a Derecho is a widespread, long-lived wind storm that is associated with a band of rapidly moving showers or thunderstorms. Although a Derecho can produce destruction similar to the strength of tornadoes, the damage typically is directed in one direction along a relatively straight swath. As a result, the term "straight-line wind damage" sometimes is used to describe Derecho damage. By definition, if the wind damage swath extends more than 240 miles (about 400 kilometers) and includes wind gusts of at least 58 mph (93 km/h) or greater along most of its length, then the event may be classified as a Derecho.

→ **Affected 98,380 Customers** – Level 3 Event [Outages that came in from 3 PM 6/29/23 thru 11PM 6/30/23]

- Primary Feeder Breaker Lockouts: 27
- Mid-Point Recloser Lockouts: 27 (avoided Primary Feeder Breaker Lockouts)

→ Restoration spanned 122 hours over 5 days

→ First four days of restoration exceeded the IEEE 1366 threshold for Major Event Days

→ Internal Storm Coordination Call took place at 5:30 PM with Storm management team

→ Marion County Emergency Management had a call at 8 PM with their partner agencies

Subsequent storm activity

June 30th

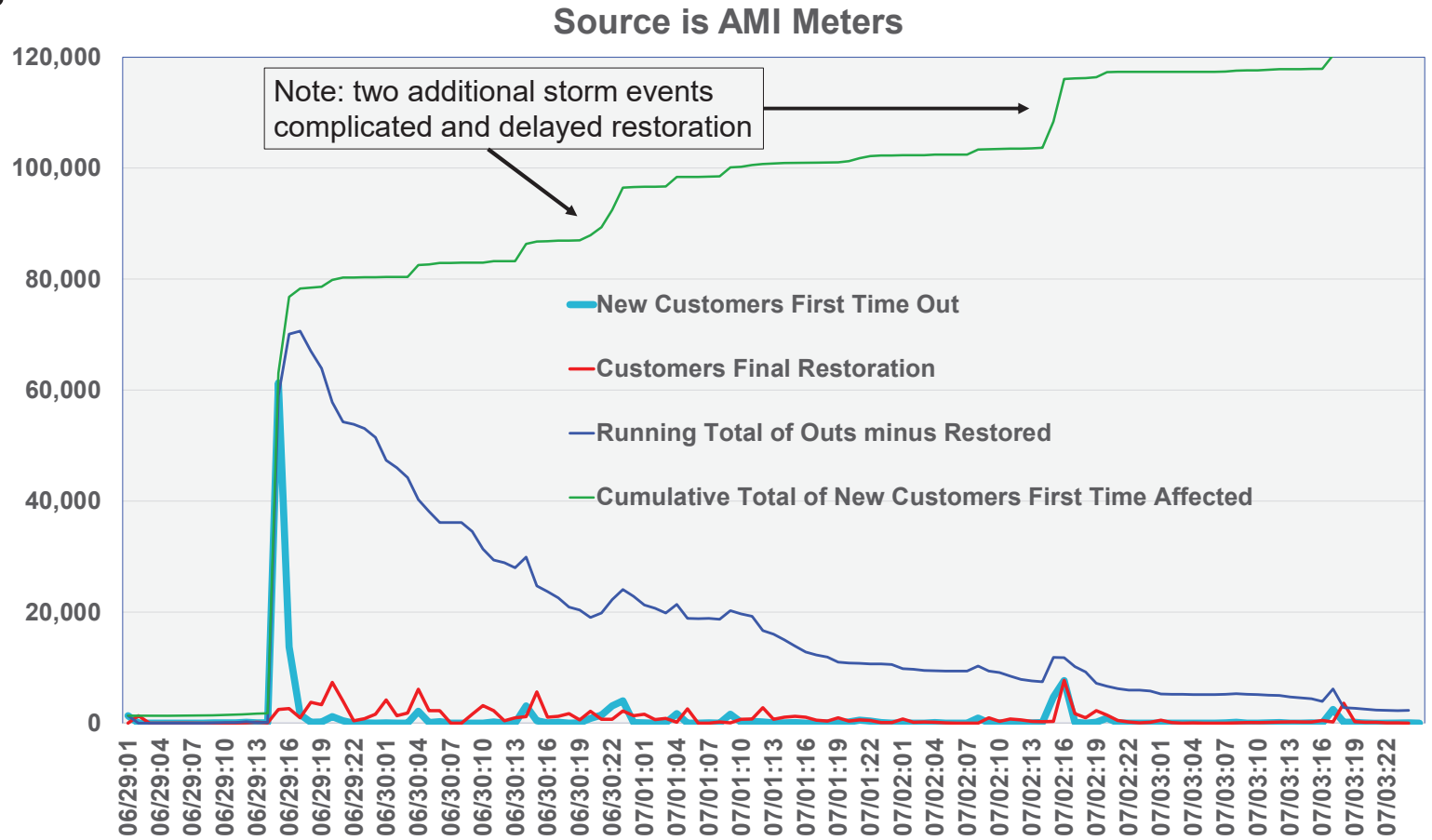
- 7,617 customer impacted by the storm
- 4 Circuit Lockouts
- 2 Mid-Point Recloser Lock Outs
- 219 Incidents
- Estimate this storm added an additional 12 hours to overall system restoration

Restoration Priority: Transmission and Substation events, Restore Mainline, Safety and Critical Customers followed by managing restoration from multiple events

July 2nd

- 8,490 customers impacted by the storm
- 4 Circuit Lockouts
- 2 Mid-Point Recloser Lock Outs
- 597 Incidents
- Estimate this storm added an additional 20 hours to overall system restoration
- When this storm hit the territory, approximately 6,034 customers remained out from the June 29th storm event with 300 incidents to work

Storm outages Restoration time trend



After-Action Review



IURC Question:

Provide an after-action summary of the event [particularly the storms that occurred between June 29, 2023 and July 2, 2023] including:

- a) The impact of the storms that hit during that time span
- b) The number of customers impacted
- c) The utility's response to the outages
- d) The common causes of the outages during that timeframe
- e) List any lessons learned from the restoration processes

After-Action summary

All outages



Total Customers restored during the time span of June 29, 2023 through July 5, 2023 from storms and from outages not related to storms:

- 116,984 Total Customer Outages from June 29th through July 5th, includes storm and non-storm outages
- 3,186 Total Outage Incidents resolved
- 700 tree incidents were worked
- 35 Feeder circuit breaker lockouts
- 31 mid-point line recloser lockouts affecting the back half of the primary circuit
- 53 broken poles
- 39 transformers replaced (35 overhead, 4 underground)
- Responded to 345 police/fire reports of wire down or other issue
- Extensive tree damage particularly on the north side of the system

Level 3 storms in the past 20 years

Date	Storm type	Cust affected	AVG cust. Restored per hr	Total crews	Broken poles	Xfmers replaced	Feeder lock outs	Midpoint reclosers locked out	MED	Notes
5/30/2004	Tornado	46,334	644		88	33	15	n/a	n/a	Prior to MED Calculations
6/9/2008	High Winds	52,554	547		14	17	18	n/a	2	Wind Gust 56 MPH
5/30/2008	Tornado	104,500	871	65	69	61	40	n/a	2	
8/4/2009	High Winds	72,125	751	59	21	15	28	n/a	1	Wind Gust 67 MPH
1/5/2014	Polar Vortex	68,310	569	96	4	36	33	n/a	3	
7/13/2015	Severe TS/Wind	75,000	625	79	58	49	29	n/a	3	Wind Gust 52 MPH
8/26/2016	Tornado	53,833	561	48	57	35	9	n/a	3	
10/20/2018	High Winds	56,601	786	61	33	38	20	n/a	2	Wind Gust 53 MPH
2004 - 2018	Average	66,157	669	68	43	36	24		2	
6/29/2023	Derecho	98,380	820	104	53	35	27	27	4	Wind Gust 70 MPH

After-Action summary



AES Indiana's response to outages:

- **Emphasis on Safety** – field crews are deployed once weather conditions are safe
- **Resources exercised** multiple paths for additional crews
 - Contacted day-to-day contractors to obtain additional crews from their contractor network, calls continued through the weekend, limited resources were available due to breadth of the Derecho across the Midwest
 - Additional contractor Line crews were brought in
 - Additional tree crews were brought in
- **Restoration took place around the clock** from June 29th through July 4th
- **1,123 people supported the restoration effort**, including AES Indiana linemen, line contractors, vegetation management crews, mutual assistance, and support roles in offices, dispatch centers, and call center

After-Action summary



Common cause of the outages and typical repair time:

→ Downed Mainline Primary Conductor

- Breaks from a tree falling on the line
- Lightning strike burns the wire in two
- Splice wire back together
- Can take an hour or more to repair

→ Blown primary fuses on tap lines

- Wire down on the tap, usually from a tree strike
- Debris blowing into the primary wire, causing the fuse to operate
- Repair depends on the cause, to just install new fuse link and close the cutout takes maybe 15-20 minutes
- Splicing wire and putting it back up can take an hour or more, depending on many spans of wire is down

After-Action summary



Common cause of the outages and typical repair time:

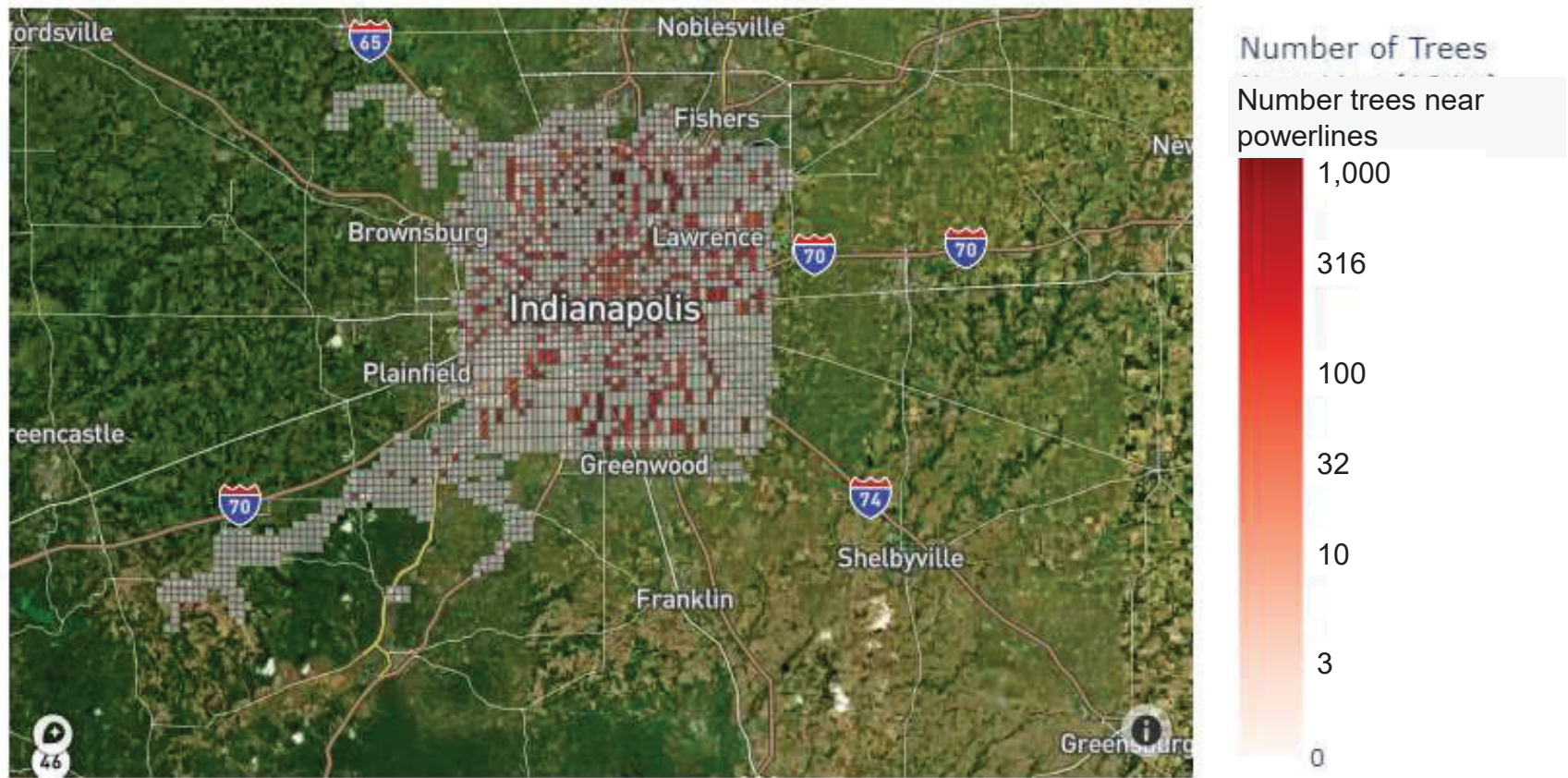
→ Broken poles

- Results from direct hit from a tree that failed
- Tree coming down on the primary wires pulling on the pole and breaking them
- Typically, will take a line crew 6-8 hours to replace one pole

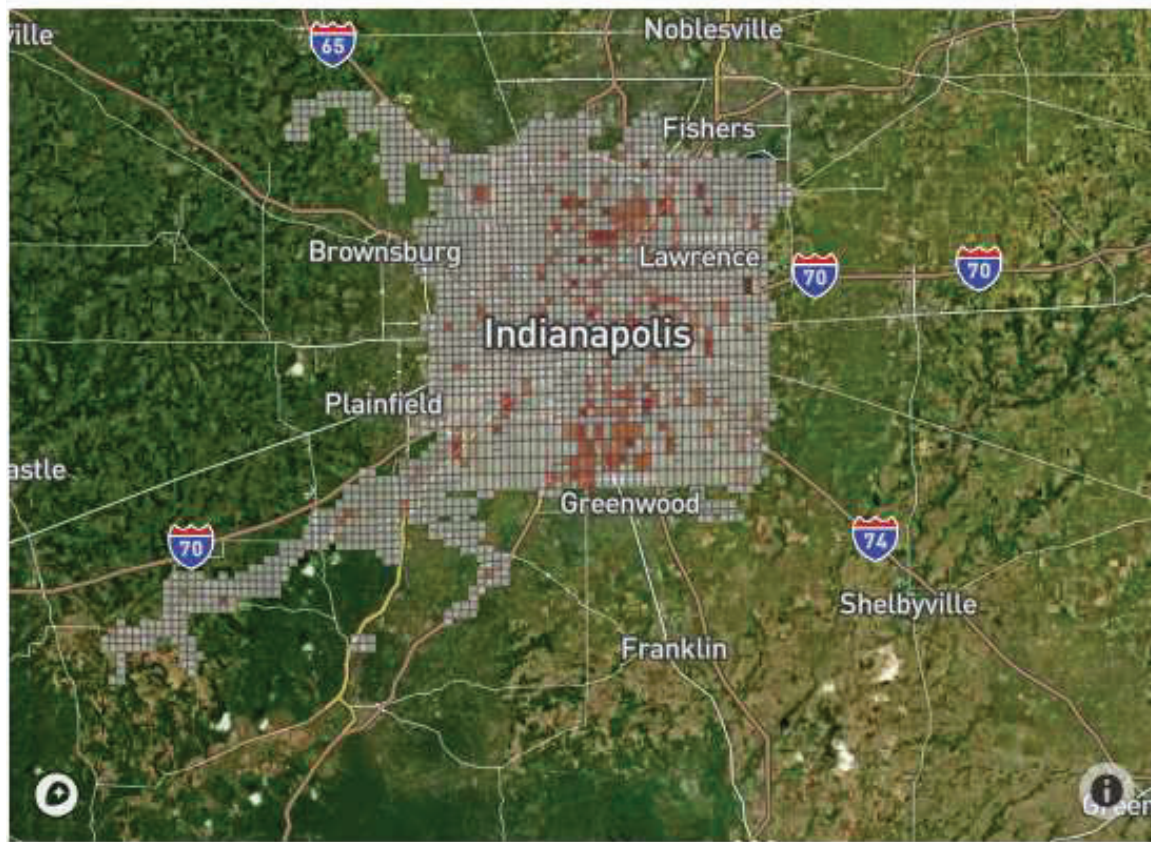
→ Vegetation

- Whole trees down
- Large limbs
- Lines have to be cleared and grounded for the tree crews lock out tag out (LOTO)
- Takes 1 or more tree crews anywhere from an hour to multiple days
- In nearly all cases, this work has to be done before any repairs to lines and poles can be initiated

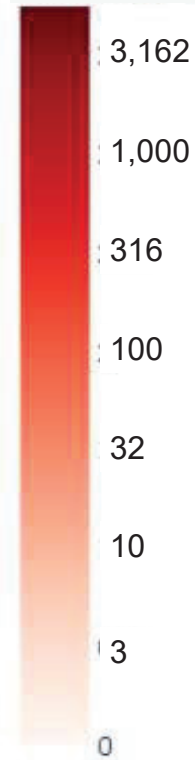
Marion County tree canopy



Marion County tree outages from 6/29

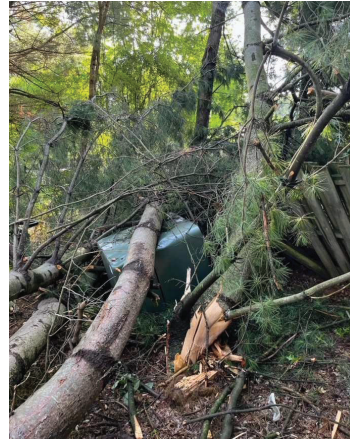


Number customer outages from trees



After-Action summary

Impact of storms:



Lessons learned/challenges



IURC Questions:

Did you have concerns with staffing or supply chain limitations?

What challenges did you face in the storm restoration process?

Complexity in restoration



→ Staffing concerns

- No issues, significant field resources already available on property at the start

→ Supply chain limitations

- No material shortages
- AES Indiana had adequate material in inventory available to support the restoration

→ Additional storms on June 30 and July 2 caused an additional 16,107 outages

→ Outages, from additional storms, extended the restoration effort by approximately 32 hours

→ Managing non-storm Outages that occurred during the restoration period

→ Managing/Dispatching additional field resources that don't have radios or tablets

Lessons learned



IURC Question:

Were there any gaps in your outage/storm restoration process that you recognized/will address going forward?

Lessons learned – TDSIC



→ Storm Hardening Construction

- Only 5 Class 1 poles broken, only 6 total since the change was made in 2019
- No 477 Aluminum Conductor Steel Reinforced (ACSR) primary conductor has been spliced or replaced to date

→ AMI

- Importance of AMI Gateways, to maintain communications with AMI meters, to ping meters for data scrubbing, and to verify restoration status

→ Advanced Distribution Management System (ADMS)

- Sectionalizing and Mid-Point Reclosers

→ Line clearance

- Seeing improvements where we have trimmed for TDSIC
- Field crews are commenting they see a positive difference

Lessons learned – Opportunities



- Existing OMS system struggled to group single customer outages to the higher-level device; resulted in over 450 single customer outage incidents
 - Action Item: OMS System will be replaced in Q3 2024; current system vendor coming in to tune the system to try and improve performance
- Post storm, utilize AMI meter data to help scrub outage data to assure archived outage data is correct; compare AMI meter data to OMS outage incidents to confirm data matches
- Develop better summary screens for ECS and ADMS system to present only information the operator needs to see in an event like this, where things are happening rapidly
- Explore opportunities to join an additional geographically diverse mutual aid community
- Explore customizable data options on the external outage map for customers during extended multi-day events
- Evaluate alternatives for the software driving the external outage map to provide more options and flexibility on the data that is displayed

170 IAC 4-1-23 Reporting Requirements



IURC Question:

Do you have any feedback on the outage reporting requirements found in 170 IAC 4-1-23?

Requirements

Feedback

170 IAC 4-1-23



- No concerns with the reporting requirements or schedule
- AES Indiana has a dedicated team as part of the Emergency Response Plan that is responsible for preparing the reports
- Requires reporting after 5,000 customers interrupted and over 2 hours of interruption
- Set schedule for reporting after the reporting threshold has been exceeded
- File reports using the Commission's PDF form
- Reporting is to continue until outages drop below the 5,000 customer threshold or as otherwise directed by the Commission
- Consider reducing this limit to 1,000 customers and also maintain the ability to request additional information

Consolidation with Pending Rate Case



IURC Question:

Discuss any advantages and disadvantages of consolidating this Cause with AES Indiana's pending rate case (Cause No. 45911) and provide respective position regarding such a potential consolidation.

Consolidation with pending rate case is not necessary or efficient



- AES Indiana performance regarding the preparation and restoration of the June 29 through July 2 storms was reasonable and appropriate given the severity of the events.
- There is no efficiency gained by consolidation.
- Consolidation could cause delay in the rate case which would:
 - delay an already complex and time-sensitive proceeding.
 - delay approval of new rates to recognize the Company's increased cost of service which includes increases in storm and vegetation management costs.
- There are other avenues, including generic workshops, to assess stakeholder and Commission concerns and issue guidance regarding practices and rules in a more timely manner than consolidation with a rate case.

Closing Thoughts





2023 Storm Response: June 29, 2023 through July 2, 2023

September 22, 2023



Richard Leger
Senior Vice President,
Indiana Electric



Gregg Maurer
Director,
Distribution Operations

CEI South's Electric Footprint



• **Customers** ~154,000

• **2022 Retail Sales** 4,591 (GWh)

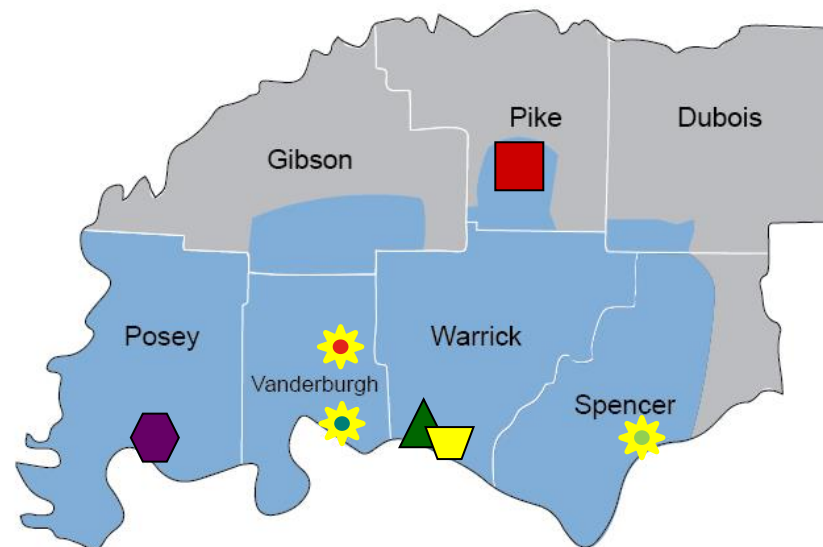
- Residential 1,398 GWh
- Commercial 1,210 GWh
- Industrial 1,967 GWh
- Other 16 GWh

• **Transmission System**

- 1,032 miles of transmission lines
- 33 transmission substations

• **Distribution System**

- More than 4,600 circuit miles of distribution lines
- 36% of distribution underground
- 79 distribution substations



Power plants^[1]

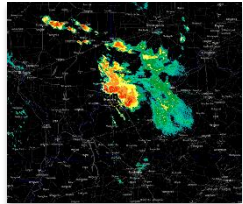
- AB Brown
- FB Culley
- Warrick Unit 4
- Blackfoot Clean Energy Plant
- Troy Solar
- Oakhill Solar
- Volkman Rd Solar

^[1]Fowler Ridge & Benton County Wind Farms not shown

Storm Impact: June 29, 2023 through July 2, 2023

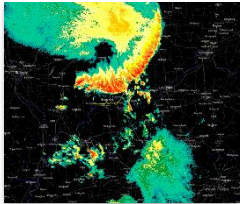


6/29 9:00 AM



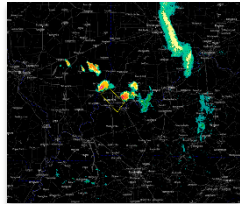
- 37 mph sustained wind
- 55 mph gusts
- 0.9" rain

6/29 3:15 PM



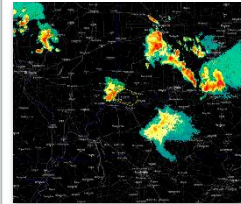
- 28 mph sustained wind
- 48 mph gusts
- 0.0" rain

6/29 8:15 PM



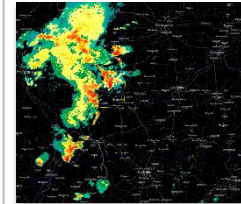
- 28 mph sustained wind
- 47 mph gusts
- 0.5" rain

6/30 11:00 PM



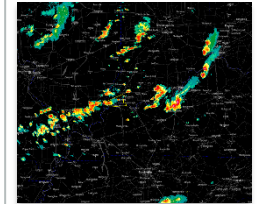
- 10 mph sustained wind
- 0 mph gusts
- 0.3" rain
- Lightning

7/1 1:45 AM



- 28 mph sustained wind
- 54 mph gusts
- 0.5" rain

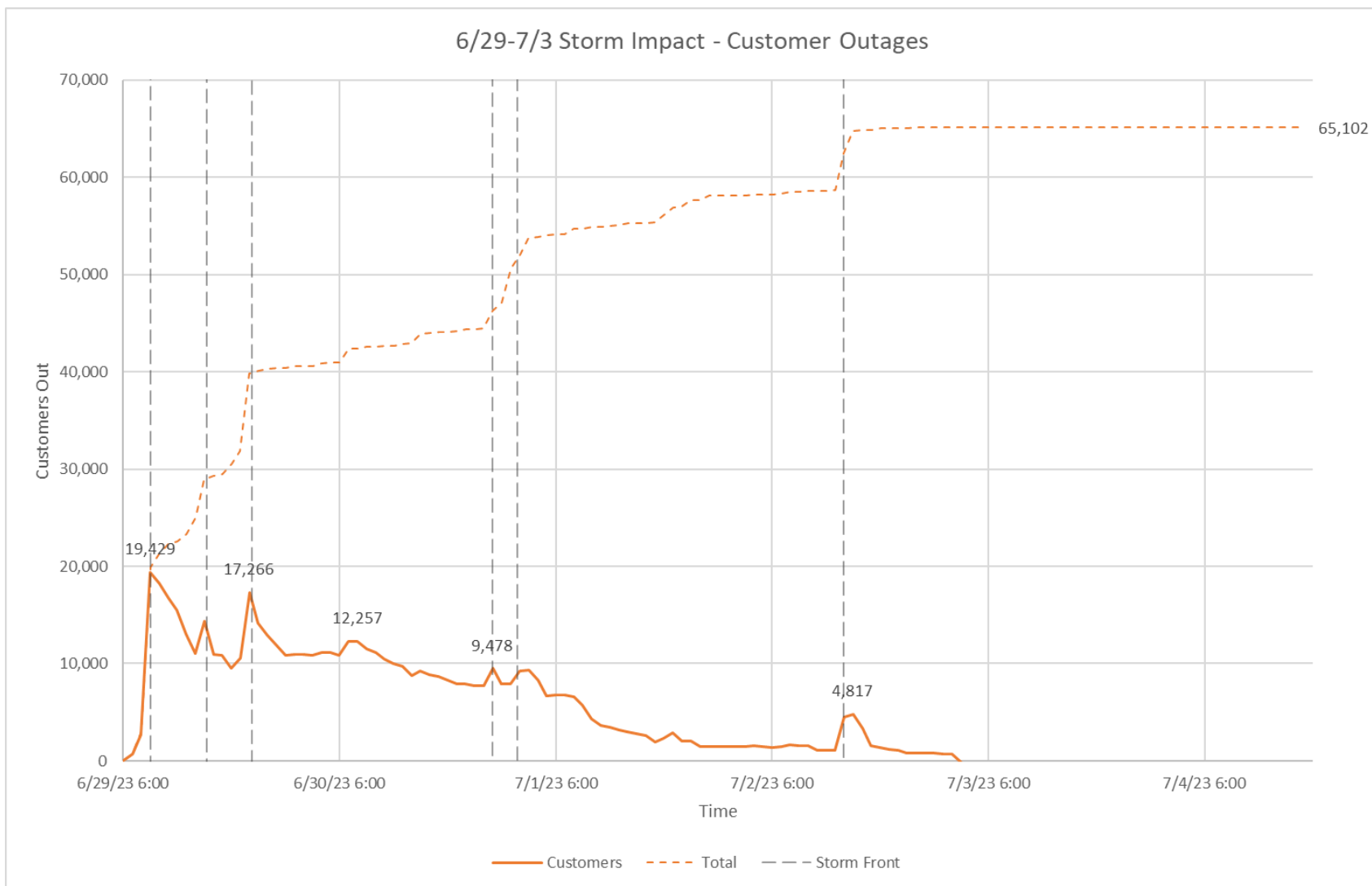
7/2 2:15 PM



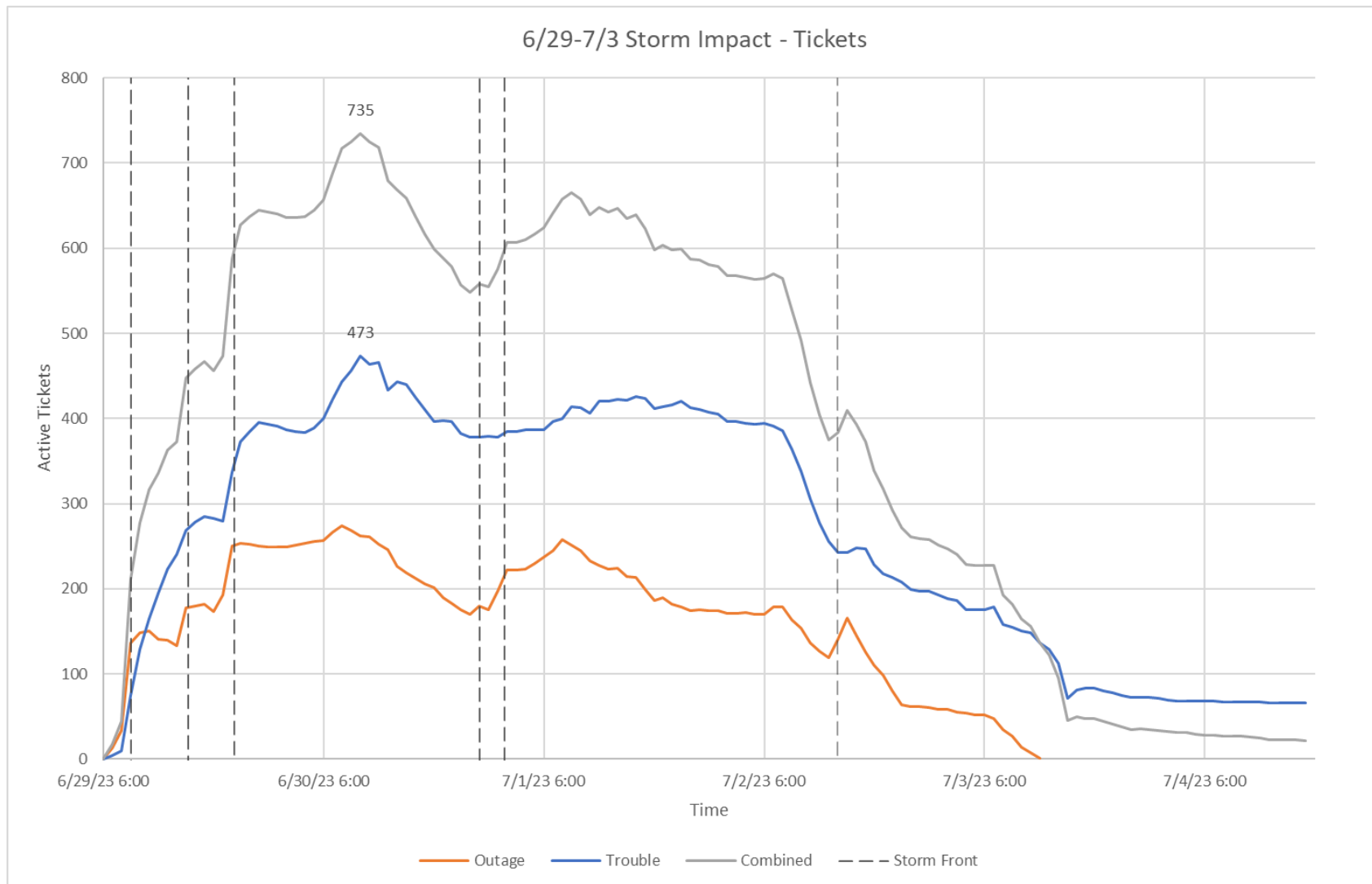
- 21 mph sustained wind
- 35 mph gusts
- 0.2" rain
- Lightning

- Six successive storm fronts across multiple days
- Peak customers out 19,429 during the 6/29/23 9 AM hour
- Total customer restorations over 65,000 during the event
- Nearly 3,400 total tickets completed

Summary of Impact



Summary of Impact



- Many utilities in our Great Lakes Mutual Assistance (GLMA) Group were impacted by the storms. We needed to engage assistance via another means.
- We reached out to a storm restoration contractor, and they provided 7 crews and their work started 7 am ET on 6/30 (GLMA initial call was 9:30am ET on 6/30).
- At our peak 52 distribution field crews were made up of:
 - 20 resident contract crews
 - 11 non-IOU crews supplied by resident contractors
 - 7 storm restoration contractor crews
 - 8 internal crews
 - 6 resident vegetation management crews
 - Additionally, we had High Voltage Operations, Field Investigators, & Electric Meter Shop supporting troubleshooting & restoration efforts

Mutual Aid, Continued



- Bergdolt Training Center utilized for onboarding non-resident crews
 - Safety training
 - Crew coordinator and work order assignments
 - Storm baskets
- Crew Coordinators (linemen retirees)
 - Local knowledge of area, system, and processes proved beneficial with productivity gains from our non-resident crews.
- Crew coordinators, contractor general foreman, and CenterPoint employees further helped with logistical items to allow crews to maximize their time in the field.



Communications Overview



- Before and during storm: proactive messaging shared via social media:
 - Prepare for incoming weather, outage reporting and safety information

CNPAlerts Indiana @CNPAlerts_IN · Jun 29

Severe thunderstorms with winds up to 70 mph & 2" hail are possible today. Receive the most up-to-date outage & restoration estimates via text message with Power Alert Service@: [CenterPointEnergy.com/PAS](https://www.CenterPointEnergy.com/PAS).

NWS Paducah, KY @NWSPaducah · Jun 29

Severe Thunderstorm Warning including Evansville IN, Henderson KY and Mount Vernon IN until 10:00 AM CDT. This storm will contain wind gusts to 70 MPH!

Severe Thunderstorm Warning

Valid Until
10:00 AM CDT Thursday
June 29, 2023

Threat Information

WIND
Up to 70 MPH

HAIL
Ping Pong
Sized Possible

Potential Exposure

Population: 184,140
Schools: 56
Hospitals: 3

2,400

CNPAlerts Indiana @CNPAlerts_IN · Jun 29

For your safety & to avoid a possible delay in reporting, do not report electric emergencies such as downed power lines or equipment via social media. Assume all lines are energized, stay at least 35 feet away & report potentially hazardous conditions to 800-227-1376. #inwx

CenterPoint Energy

Stay safe around downed wires.

Maintain a distance of at least 35 feet and contact **CenterPoint Energy** at **800-227-1376** to report the issue.

1,670

CNPAlerts Indiana @CNPAlerts_IN · Jun 29

Severe weather has resulted in widespread power outages – crews are assessing damages & will make repairs as quickly & as safely as possible. With more storms possible today, outages may fluctuate & our ability to provide estimated restoration times may be unavailable. #inwx

CenterPoint Energy

Outage Update

13 6 2,850

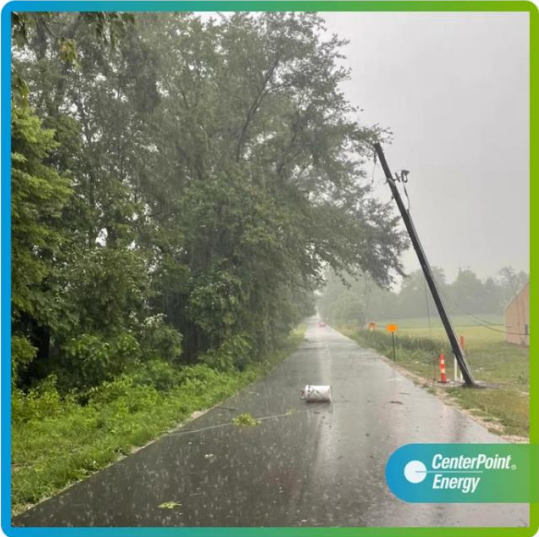
Communications Overview



- Storm response and restoration updates were shared to the public via various channels:

@CNPAIerts_IN

As storms continue to impact the area, those customers currently without power should be prepared to be without service overnight. Our crews will continue to work tirelessly until all customers are restored. Stay at least 35 ft away from downed lines and call us at 800-227-1376.



CenterPoint Energy


9:30 PM · Jul 1, 2023 · 1,611 Views

CNPAIerts Indiana @CNPAIerts_IN

Another round of storms is expected to come through the #Evansville area that may result in additional power outages as well as downed trees and power lines. Stay at least 35 ft away and call us at 800-227-1376. Never attempt to remove limbs or any other object from a power line.

Wayne Hart @Wayne_C_Hart · Jul 1


Severe Storm WATCH continues for #tristatewx. Main line of strong/severe storms is now moving in from the west & will arrive in Evansville shortly before 7:00 & exit our eastern counties by 8:30. Damaging winds are main concern though an isolated tornado is possible. #EWNWeather



DIVERSBORO Health LIVE RADAR 6:33 PM FIRST WARNING DOPPLER

CNPAIerts Indiana @CNPAIerts_IN

Before this afternoon's storms in #Evansville, we had completed more than 50,000 outage restorations with approximately 200 customers remaining without service. Today's new line of storms caused further damage to our southwestern #IN service territory. #tristatewx #inwx 1/4



CenterPoint Energy

CNPAIerts Indiana @CNPAIerts_IN

Last night's storms have resulted in additional outages and downed lines. Stay at least 35 feet away from any type of downed line or wire, assume it is energized and call us at 800-227-1376. Never attempt to remove limbs or any other object from a power line. #tristatewx #inwx



Stay safe around downed lines.

Assume they are energized, stay at least 35 feet away and call us at 800-227-1376.

Never attempt to remove limbs or any other object from a power line.

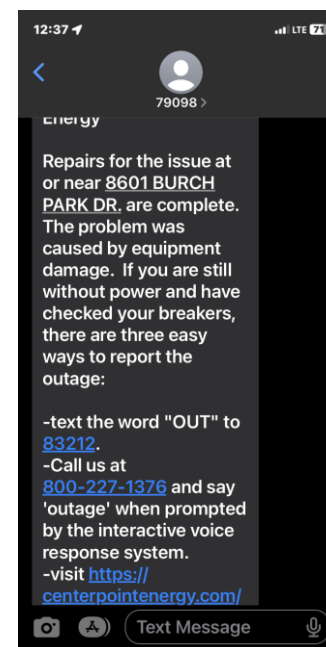
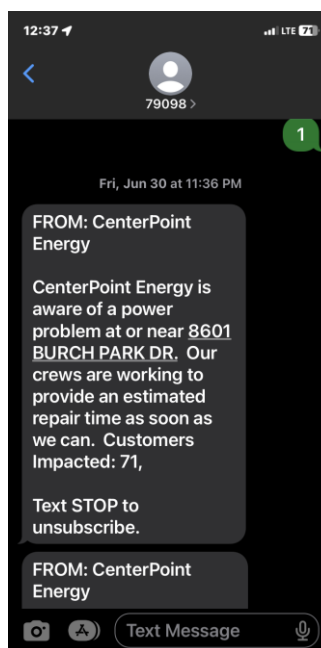
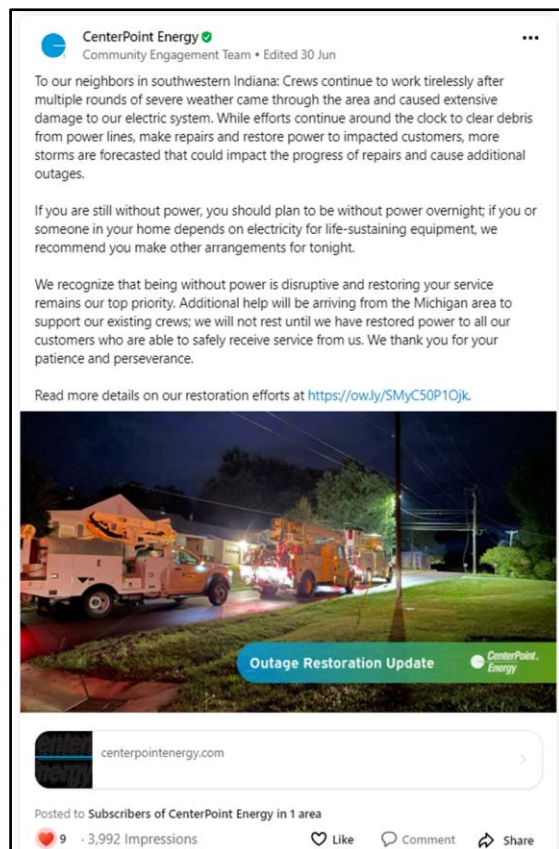
CenterPoint Energy

11:31 AM · Jul 1, 2023 · 1,782 Views

Communications Overview




- Social media posts on X, Facebook and Nextdoor
- News release updates on restoration progress
- Targeted customer PAS messages with restoration updates



Communications – Internal & Media After-Storm Response



 **Richard Leger**
Senior Vice President
Indiana Electric

Dear Colleagues,


Due to the severe storms throughout the day and overnight on Thursday, our electric system across southwestern Indiana experienced extensive damage that resulted in outages peaking at nearly 17,000, which represents more than 10% of our customer base.

Tackling widespread damage to poles, cross arms, and downed wires and trees, our crews worked overnight to assess damage and troubleshoot large outages. Today, crews will continue responding and making repairs, so the outage count is likely to fluctuate. As of 8 a.m., there were approximately 7,000 electric customers still without power.

We have activated Emergency Operating Plan (EOP) Level 3 for Indiana Electric. If you have not been notified to assume your EOP role, please continue with your normal responsibilities.

CenterPoint Energy crews and contract crews will work today and overnight to continue damage assessments, debris clearing efforts, and trouble shoot outages. Larger outages will take priority to get as many customers restored at a time; however, due to the extent of damages, restoration efforts are likely to continue through the weekend.

- We ask employees to remain safe and remember: Stay at least 35 feet away from downed power lines and report them to CenterPoint Energy at 800.227.1376. Be



CenterPoint Energy provides final update on restoration efforts

Crews continue efforts to restore customers who remain without power by this evening; Company safely completes more than 60,000 outage restorations caused by six separate severe weather events over four days

Monday-July-3-2023

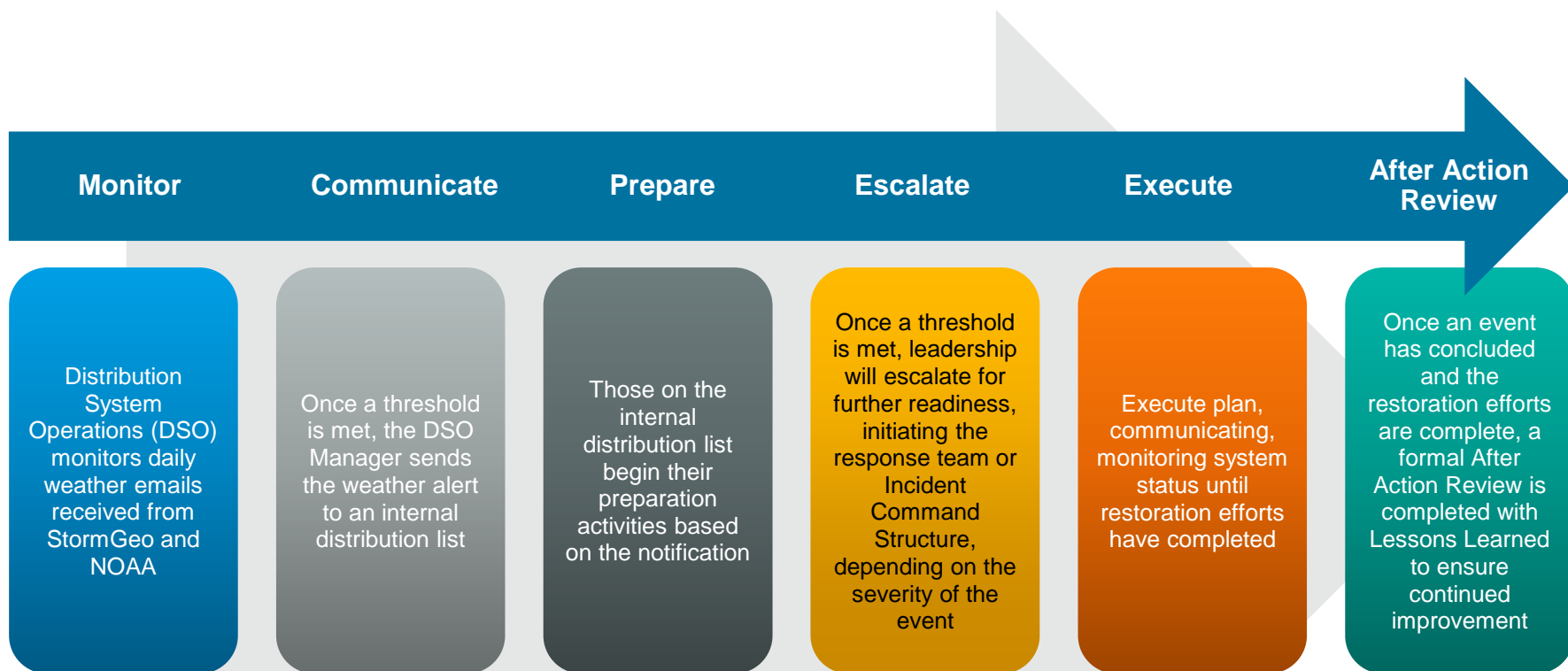
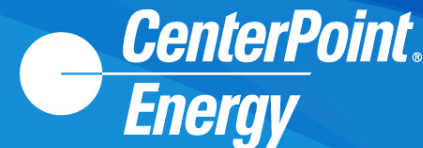
Evansville – July 3, 2023 – In the aftermath of six separate and severe weather events over four days, CenterPoint Energy's crews are in the final stages of their efforts to restore power to the remaining electric customers. **All remaining restorations are expected to be completed and electricity restored to customers able to receive service this evening.**

Employees and mutual assistance resources were able to safely complete more than 60,000 outage restorations over the past five days. Throughout the day, CenterPoint Energy will have approximately 50 crews, including mutual assistance resources comprised of linemen, apprentices, and vegetation management, working to restore power to the remaining impacted customers.

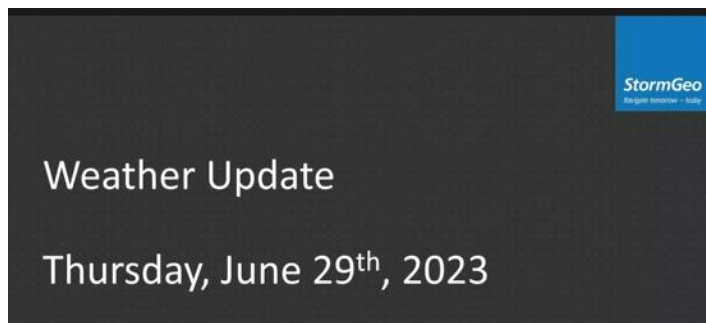
Over the course of the company's response, CenterPoint Energy replaced more than 100 poles, patrolled miles of lines, replaced and strung numerous spans of wire, and removed and trimmed vegetation. As of 1:30 p.m. CT, there were approximately 73 customers without power across southwestern Indiana.

"We appreciate our customer's patience and understanding as this has been a difficult and disruptive time for many, especially those who experienced extended unplanned outages," said Richard Leger, Senior Vice President, Indiana Electric at CenterPoint Energy. "The rounds of severe storms caused extensive damage throughout our region and provided constant challenges for our crews as they faced repeated outages, which unfortunately resulted in longer restoration times.

Timeline For Weather-Related Events



Leverage
StormGeo
Weather
Forecasting
Service



Preparation For Severe Weather-Related Events



- CEI South electric field operations prepares for severe weather through annual drills such as Emergency Operations Plan (EOP) drills and Storm Response Plan drills
- Prior to a severe weather event, plans are executed to ensure planned outages are restored, providing maximum redundancy for the system
- Electric field operations keeps an inventory of spare equipment specifically for storm restoration efforts to provide assurance that equipment is available in time-sensitive situations
- Vehicles are stocked and maintained to ensure readiness
- Options identified in anticipation of need for additional materials (laydown yards, increased min/max levels, & agreements with vendors to get us emergency material)

After Action Review



- Following each storm event, our team solicits feedback on what went well and what we could do better. This process is reinforced by our Continuous Improvement Culture.
- We categorize these lessons learned and work through action items to address them as soon as possible.

Categories
Checklist Update
Logistics Update
Objectives Update
Roster Updates
Tool Needs
Training Needs
Wins



- **Examples of Improvement Opportunities**

- **Tools**

- Identify improvements with backup communication methods (experienced telecom outage during storms)
- Opportunity for blue sky 811 process and storm response 811 process

- **Training**

- Continue to improve field investigator damage assessments through additional training

- **Examples of Our Wins**

- No injuries to any of our employees or contractors
- Cross-functional support
- Well-organized
- Good use of support roles & understanding of responsibilities

- What worked well for our customers?
 - Outage prioritization
 - Executed our critical customer restoration plan
 - Outages with largest customer impact
 - Customers that have been off the longest
 - Properly staffed to support the needs of our customers
 - Call center staffed with average wait time of 117 seconds
 - Customers took advantage of online outage reporting
 - Worked closely with industrial and commercial customers to ensure open communication and clear expectations

Outage Reporting Requirement: 170 IAC 4-1-23



- CEI South is aligned with revisiting the current outage reporting requirement and its associated process.



Duke Energy Indiana *Storm Response*

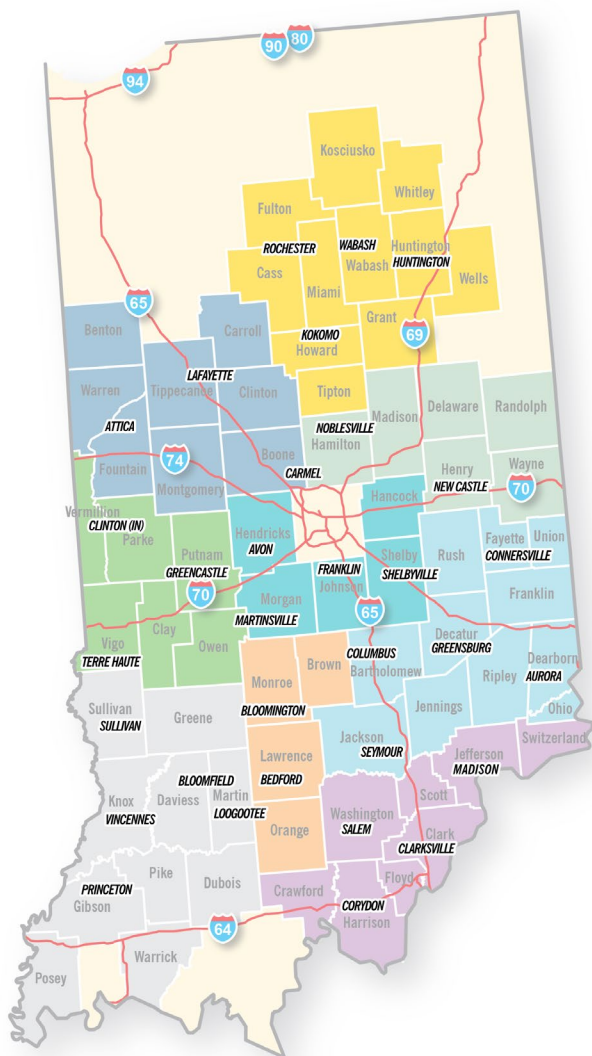
Presented to the
Indiana Utility Regulatory Commission

September 22, 2023

Stan Pinegar - State President Duke Energy Indiana

Donald Broadhurst – Regional Senior Vice-President Customer Delivery

Duke Energy Indiana at a Glance



Largest electric utility
in Indiana

23,000 square-mile
service area, covering
69 of 92 counties

890,000 customers

36,800 miles of
transmission and
distribution lines

32 operation centers and
9 community relations
managers

2,500 Duke Energy
Employees in Indiana

Locations: T&D Operation Centers
Colors: Community Relation Manager Areas

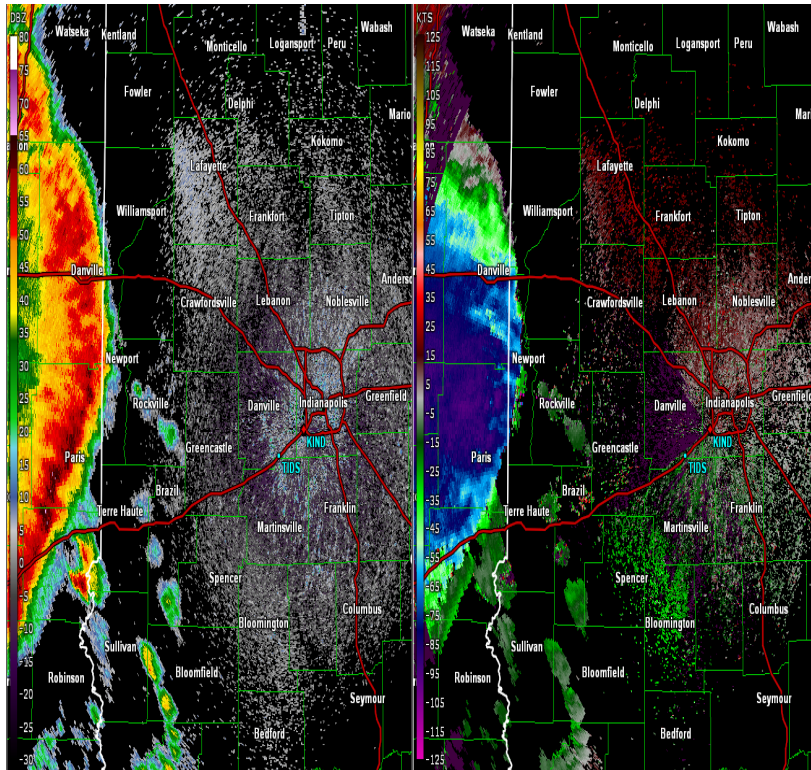
A large, solid blue rectangular box containing the text "Summary of Event" in white, bold, sans-serif font. The box is positioned in the lower-left quadrant of the slide, overlapping the field and sky background.

Summary of Event

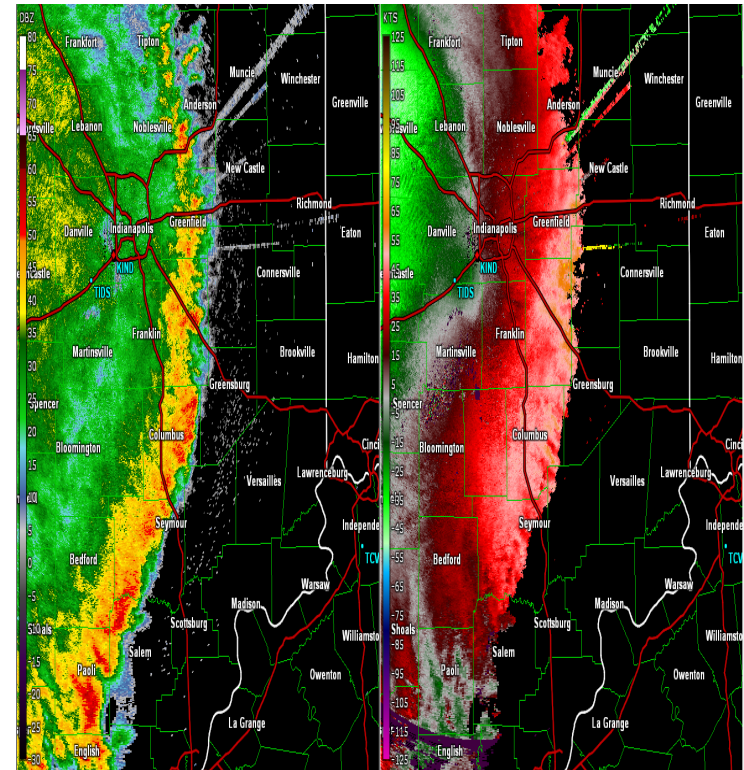
Meteorology Images



Radar/Base Velocity June 29, 2023 2:46 PM EDT

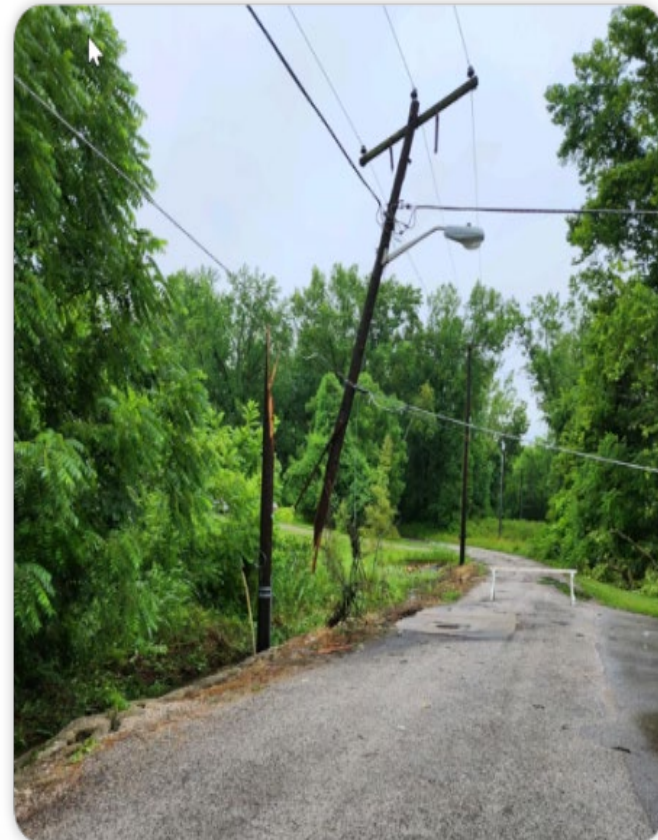


Radar/Base Velocity June 29, 2023 4:20 PM EDT



What is a derecho? A derecho is a widespread, long-lived windstorm that is associated with a band of rapidly moving thunderstorms. If wind damage extends more than 400 miles in length and 60 miles in width, includes wind gusts of at least 58 mph or greater along most of its length (along with several well-separated 75 mph wind gusts reports) then the event is classified as a derecho.

Derecho Storm



- On June 29, 2023, a Bow Echo Derecho passed across the State of Indiana.

- Estimated wind gusts of 80 – 90 mph caused widespread power outages across the state

Historical Storms



Historical Ranking of Midwest Storms Since 2003 (based on Customers impacted)

		IN North		IN South		Indiana Totals		
Ranking	Storm Date	Events*	Customers	Events*	Customers	Events*	Customers	Comments
1	9/14/2008	376	28,587	4,164	300,036	4,540	328,623	Hurricane Ike
2	6/29/2023	4,477	160,709	3,606	164,029	8,083	324,738	
3	2/13/2007	139	6,537	508	38,437	647	44,974	
4	11/15/2018	48	4,284	931	84,334	979	88,618	
5	2/11/2009	455	50,551	501	58,747	956	109,298	

***Events** – The number of instances where outages are reported via automated technology from field assets and direct reports from customers.

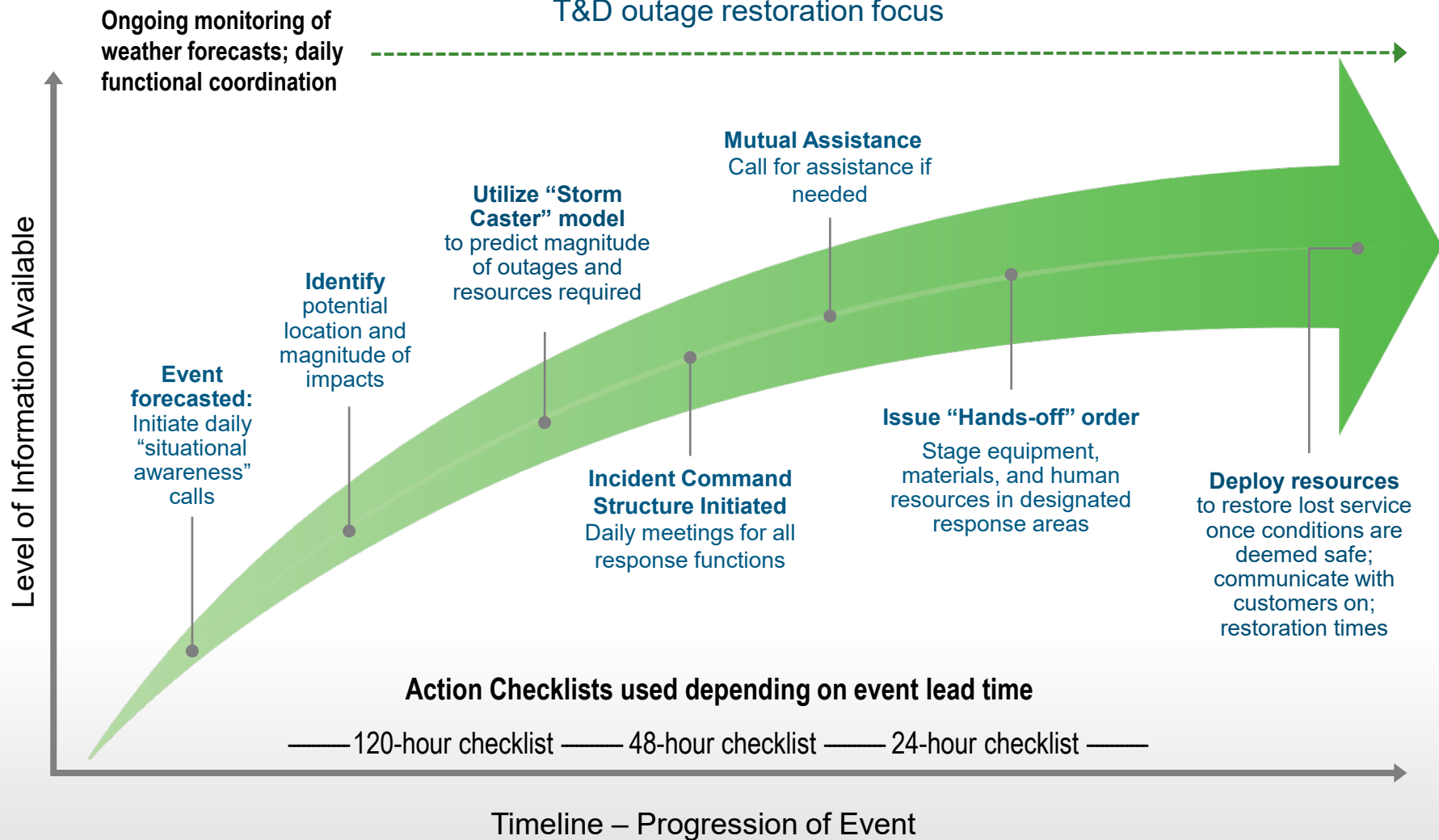
A utility worker wearing a yellow safety vest, a hard hat, and work boots stands in front of a white utility truck. The truck has "DUKE ENERGY" and the number "17301" visible on its side. The worker is holding a pair of pliers. The background shows green trees and a clear sky.

Proactive Preparation

System Readiness: Event Identification and Response



Major Storm Event T&D outage restoration focus



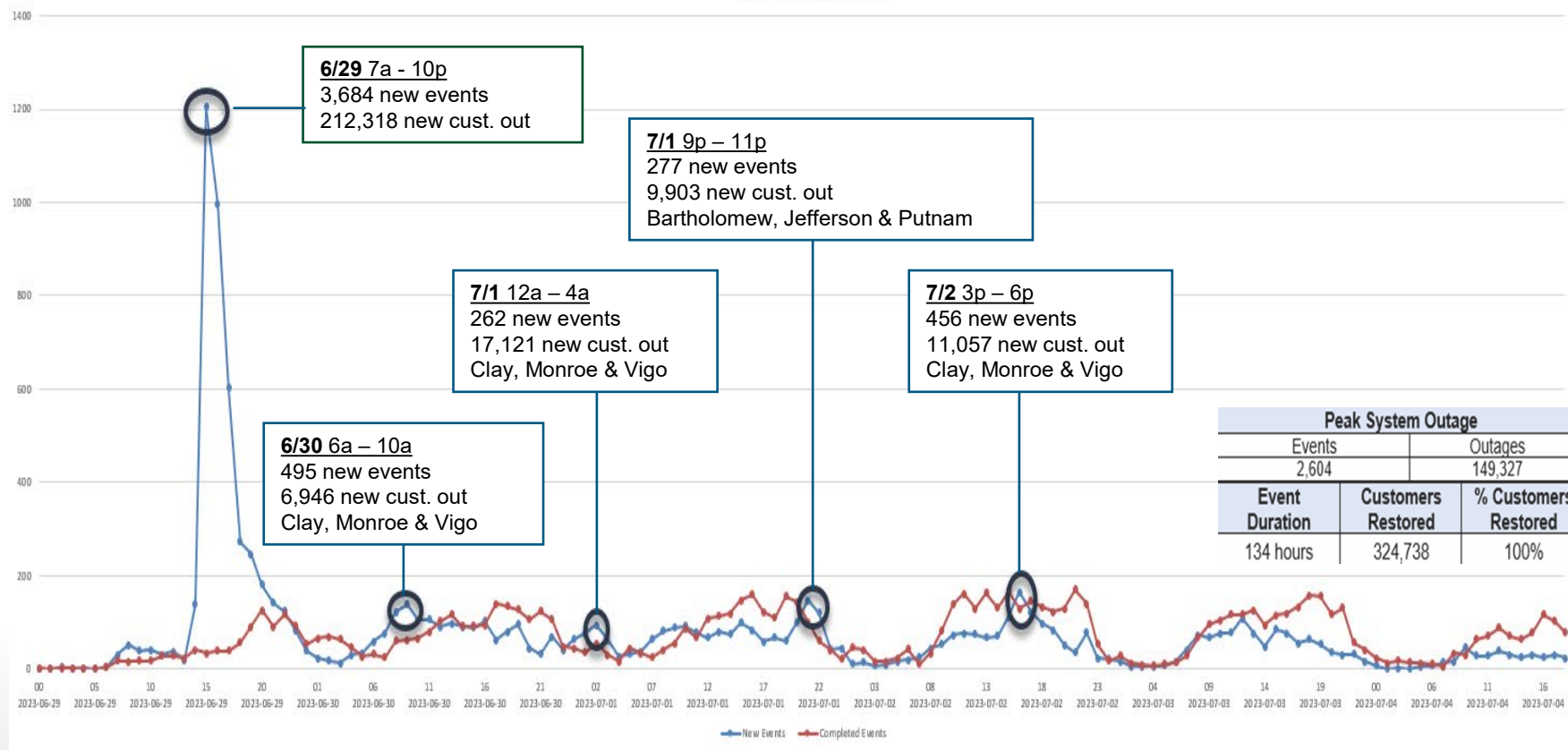


Response to Outages and Impacts



New vs Completed events

Indiana 6/29-7/4
New vs Completed Events



Peak System Outage		
Events	Outages	
2,604	149,327	
Event Duration	Customers Restored	% Customers Restored
134 hours	324,738	100%

The event duration was approximately 6 days with 5 days being categorized as Major Event Days (MED)

Storm Impact and Response



Widespread damage:

- The widespread nature of this storm, which affected nearly all the 32 Indiana operations centers we serve, as well as a series of new storms moving through the service territory daily made power restoration especially challenging.

Incident Response:

- Incident Management Team activated at the level 3 on 6/29/23 and remained activated throughout the duration of this extensive event

Mobilization:

- Mobilized a workforce of approximately 1,900 distribution resources and 215 transmission resources:
 - Duke Energy Carolinas and Ohio/Kentucky
 - Great Lakes Mutual Assistance partners (ARC American (NIPSCO contractor), ComEd, Danella, Henkels & McCoy, Hydaker Wheatlake, Louisville Gas & Electric/Kentucky Utilities, MJ Electric and The Robert Henry Corporation)



Storm Impact and Response, continued



Safely Executed:

- Safety was top priority throughout restoration
- 0 recordable injuries and 2 minor first aids events

Advanced Technology Assistance:

- Pinged ~17,000 smart meters to validate if power was restored. Through this process, more than 3,000 outage tickets were closed or avoided without rolling a truck.
- Successful self-healing operations related to the event with ~13,000 customer interruptions (CI) saved with ~5 million customer minutes of interruption (CMI) saved as a result of our grid investments





Storm Challenges

Storm Challenges



What challenges did your utility face in the storm restoration process? Did you have concerns with staffing or supply chain limitations?

- The primary challenge for this storm was that fact that we continued to experience additional storms
- There were no staffing or supply chain limitations
- There were challenges with the sheer number of outage tickets
- Estimated Time of Restoration (ETRs) communicated to customers were reset due to multiple days of weather





Communication with Customers

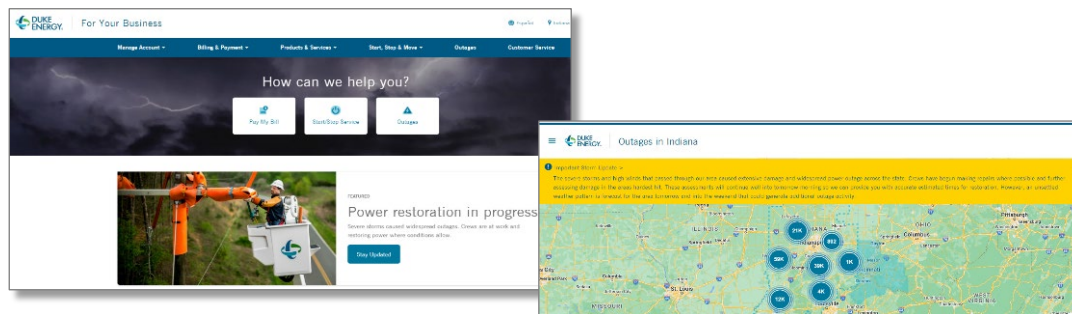
Direct-to-Customer Communications | Overview



Communications began on 6/29 immediately following the derecho impacts & did not conclude until 7/5. Communication Channels include:

Duke Energy Website

- Dedicate storm page at DukeEnergyUpdates.com
- Residential and Business Home Pages
- Outage Map Banner Alerts

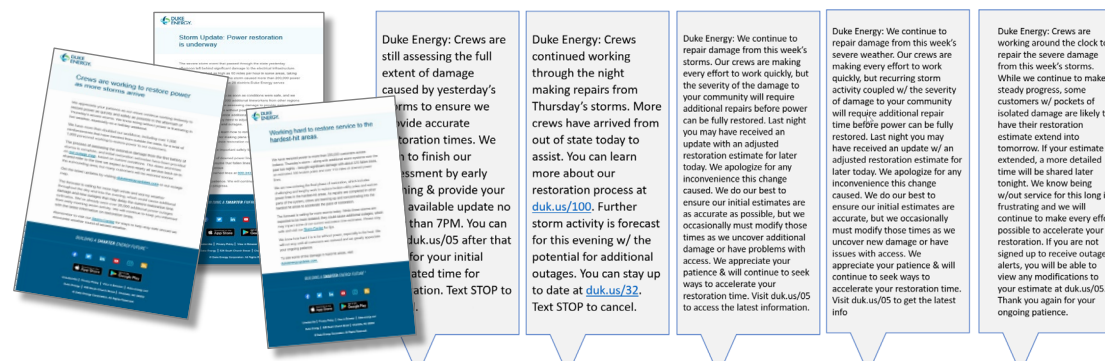


Email

- Series of Restoration Updates
- Thank You

Text & Outbound Calls

- Steady text, call cadence re: restoration progress
- Standard Restoration Updates (Outage Alerts)
- Notifications of Service Order delays



Videos

- How We Restore Power
- Outage Alerts Explained
- Nested Outages (explanation of why power might still be OFF, when notifications suggest work is complete)



Duke Energy Customer Reach



Outbound Emails

- 4 emails sent to ~350,000 customers



Outage Map Views

- 194,000 users of the Duke Energy outage map



Proactive Texts & Calls

- 300,000+ proactive text messages
- 86,000+ outbound calls



Outage Alerts

- 439,000 outage alerts



Inbound Social Media

- ~130 responses to inbound social media messages from customers



Advertising Impressions (2 weeks)

- TV: 257,466
- Radio: 100,284
- Digital: 5,151,755
- Streaming Audio: 50,765
- Print (13 insertions): 73,181



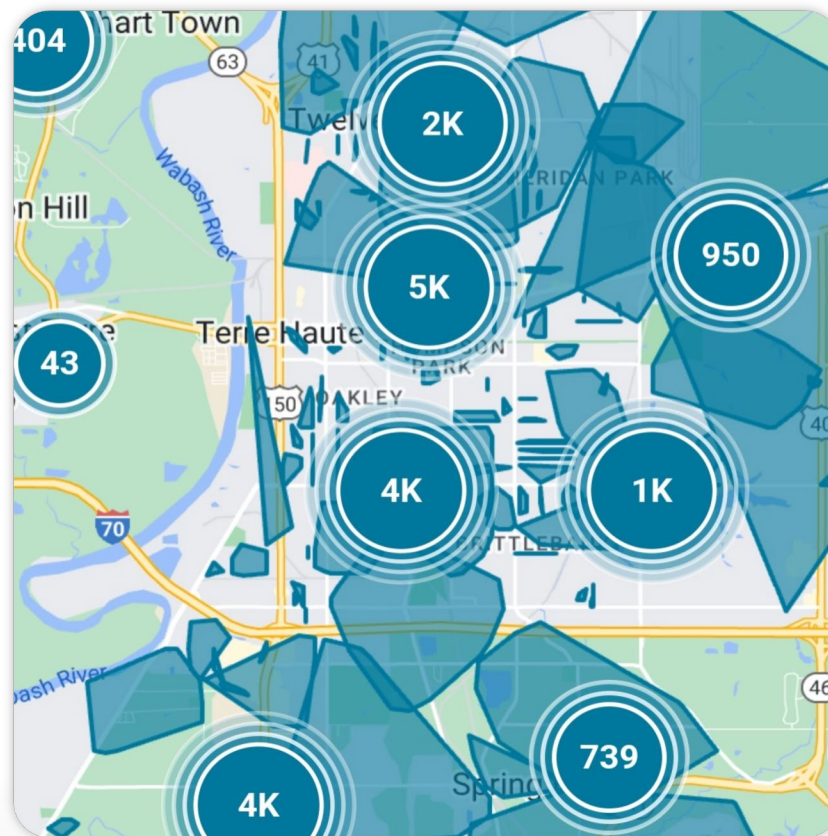
Outage Reporting Requirements

Outage Reporting to the IURC



- Reporting begins with the Distribution Control Center and a reporting team takes over when a Level 3 storm is declared
- Once the customer outage total drops below the statutory outage levels IURC outage reporting stops
- A final report is issued after the number of customers out of service drops below 5,000 and remains that way
- Duke Energy Indiana does not have any comments or suggestions on the reporting requirements

Questions





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Indiana Michigan Power Storm Response Discussion

As Requested by
Indiana Utility Regulatory Commission

September 22, 2023

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I&M Overview

Introduction of Presenters

- Steve Baker, President and COO
- Katie Davis, Vice President – External Relations and Customer Experience
- Dave Isaacson, Vice President – Distribution Operations

Presentation Overview

- June 29, 2023 Storm Event
- I&M Operations Approach to Storm Response
- Customer Communications During Storm Events
- Questions

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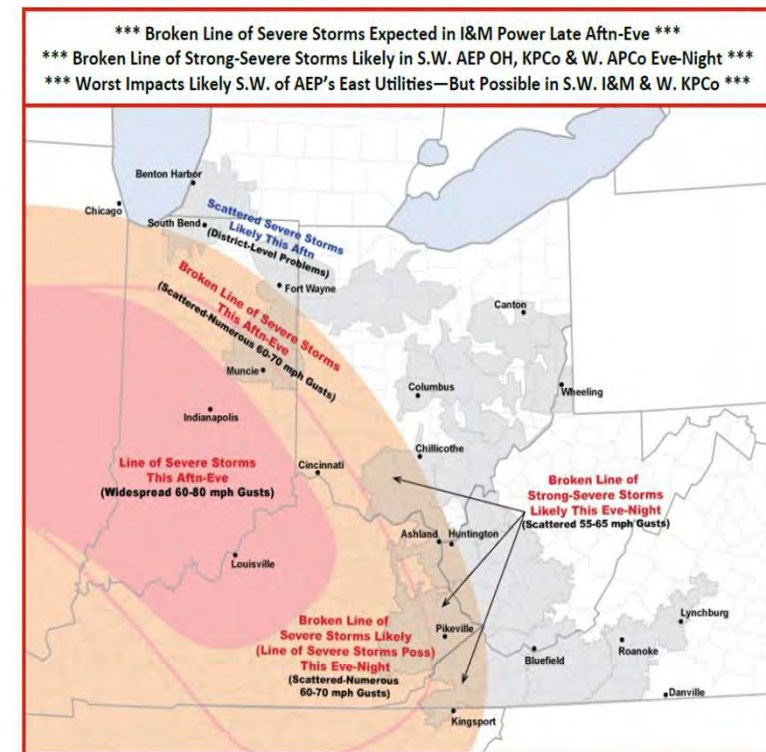
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June 29th Weather Event – Planning

Pre-Event Preparations

- The I&M team closely monitored multiple weather forecasting services prior to the June 29th event, at 12:34pm AEP Meteorology issued the following weather alert
- The Incident Command Structure (ICS) team was put on alert and all baseload business partners were put on standby (160 business partner and internal resources)
- At 6:38 pm, AEP meteorology cancelled the weather alert for I&M
- I&M continued to monitor weather and prepared crews to help other utilities if called upon



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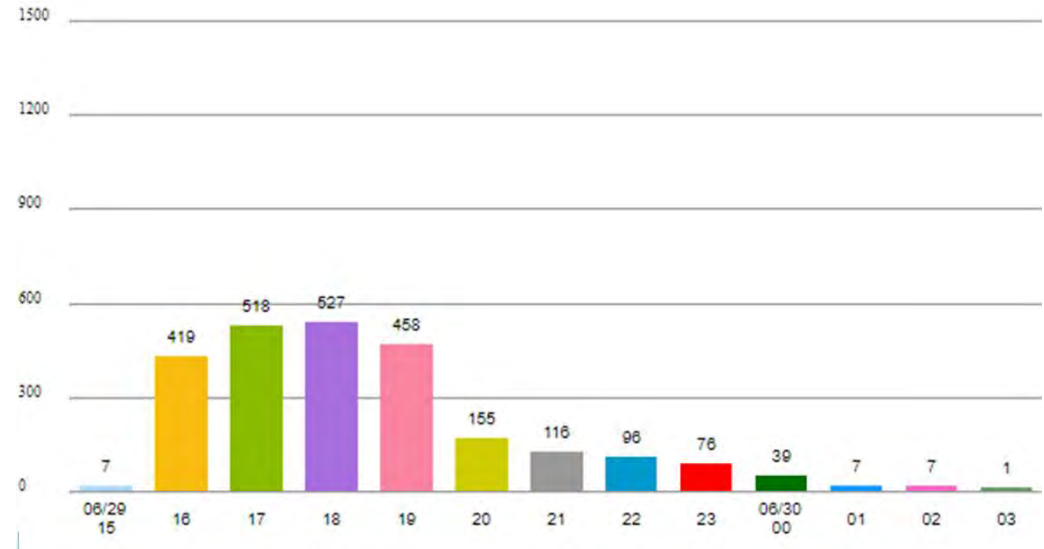
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June 29th Weather Event - Customer Impacts

Weather Impact

- A weakened weather system moved into I&M footprint on the evening of June 29th
- Peak customers out were 527
- 70% were restored within 2 hours of this peak with 99% recovered by midnight
- All Customers had power restored in 10 hours



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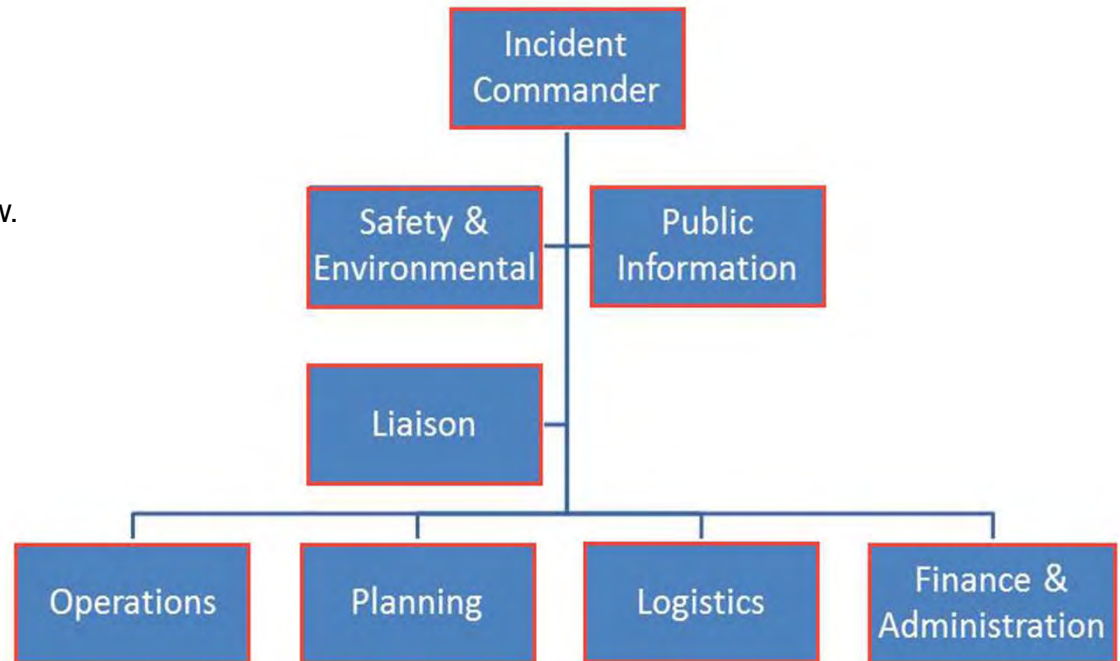
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I&M Storm Response: How We Prepare

Weather Forecast

- Weather alert is received from AEP Meteorology with probability prediction model data for a forecasted weather event.
- AEP Mutual Assistance schedules a meeting to review.
- I&M Leadership reviews the weather forecast.
- Based on severity of the weather forecast, ICS is activated, internal and base load resources are put on alert, and AEP Mutual Assistance is contacted to fill outside resource requests.
- ICS Logistics and Planning sections engage to prepare. Planning section sets up structure for strategic interface with other sections and situational analysis to prepare for resource mobilization.



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Restoration Times Explained

I&M uses four types of “ETRS” (Estimated Time of Restoration)

- Global ETR- A prediction model set under a normal “Blue Sky” day
- Projected ETR- A restoration time set by a dispatcher relaying to the customer the best estimate of restoration time based on crew availability
- Field ETR – A restoration time estimate entered by the person in charge of the crew on site
- Event ETR- This ETR is given once high-level assessment is complete and crew availability is fairly certain. It is the time when we expect 90% of the impacted customers to be restored.

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Communications Overview

I&M utilizes many communication channels before, during and after storms to keep customers informed both individually and at broad scale:

- Social Media
- Digital Advertising
- Email
- Radio
- I&M's Website
- I&M's Mobile App
- News Media Updates
- Text and Email Alerts



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Storm Preparedness

I&M shares general weather and preparedness information throughout the year.

When thresholds are met for confidence in the scope, location and likelihood of a storm, I&M sends proactive emails and social media posts to alert customers. If certainty is strong enough, we will also use digital, social and radio ads to expand our reach.

I&M maintains communication with the IURC, and in the event severe weather is expected or outages occur our external and government affairs teams contact local EMAs and state and federal emergency agencies as needed.

The screenshot shows a news release page from Indiana Michigan Power. The header includes navigation links for 'MY ACCOUNT', 'OUTAGES', 'SAVINGS', and 'News Release'. The main headline is 'BECOME WEATHER-READY: PREPARE FOR STORMS BEFORE THE FIRST WARNINGS' dated June 27, 2023. The article text discusses the transition from sunny afternoons to dark, thunderous evenings and provides weather-ready tips. A prominent yellow banner reads 'WEATHER-READY TIPS'. Below the text, there is a photo of a worker in a hard hat and a 'Customer Email' button.

The screenshot shows a social media post from Indiana Michigan Power dated August 24. The text reads: 'Hot, humid, unstable air is pushing into the southwest Michigan and northern Indiana parts of the I&M service territory this evening and into the night. Several storms are expected to quickly become severe. Let's get weather-ready! When extreme weather strikes, make sure you're aware of your surroundings. If you see a downed power line: - Assume the line is energized and stay as far away as possible. - Call I&M at 1.800.311.4634 (or dial 9-1-1) to report the line. - If a downed wire is touching your vehicle, stay in your car and call 9-1-1.' Below the text is a link to 'IndianaMichiganPower.com/weather' and a 'WEATHER-READY TIPS' graphic with a lightning bolt background.

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Restoration Updates

I&M constantly communicates with customers during storm restoration:

- Customer account pages, the outage map our mobile app, and text/email alerts are updated live with the latest estimates
- I&M sends multiple news media updates daily, which are also shared on our website and social media
- ETRs are communicated as early as possible and updated as necessary during the restoration process



STORM UPDATE

07.20.2023 | 4:30 P.M.

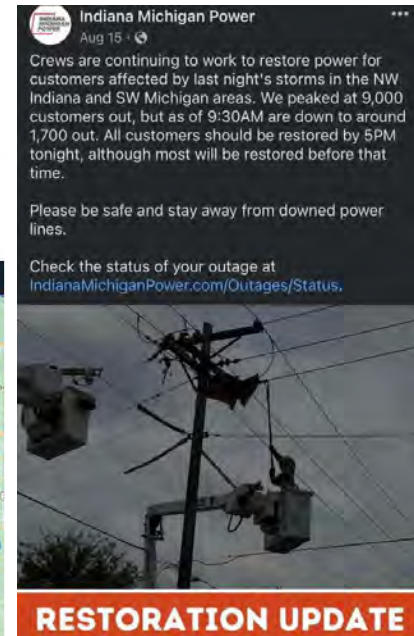
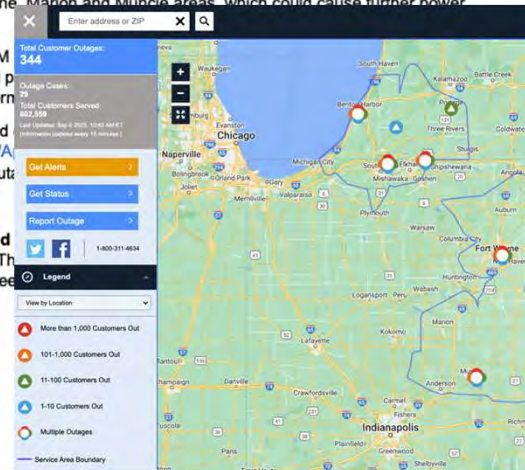
Strong to severe thunderstorms are causing power disruptions to Indiana Michigan Power (I&M) customers. As of 4:30 p.m., about 9,800 customers are without power – a majority of affected customers are in the Elkhart area. More scattered strong to severe thunderstorm are expected this evening in the Fort Wayne, Marion and Muncie areas, which could cause further power disruptions.

Where it is safe to do so, I&M will attempt to restore service. I&M will have damage assessors can determine the extent of damage.

Customers can stay informed at [IndianaMichiganPower.com/Outages](https://www.indianamichiganpower.com/outages) and can view outages the outage map.

SAFETY INFORMATION

- **Never touch downed power lines.** If you see a downed power line, call 911. Do not touch downed power lines. Do not touch anything that may be in contact with a downed power line. Do not touch anything that may be in contact with a downed power line. Do not touch anything that may be in contact with a downed power line.



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Post-Storm Communications

Following a storm, I&M emails customers to thank them for their patience and understanding during the restoration process.



I've been on the ground with I&M, helping to restore power following the damaging thunderstorm that brought outages to the Elkhart and Fort Wayne regions.

The power is back on for nearly all of the nearly 20,000 &M customers affected by the storm. We remain focused on restoring power to the remaining customers as quickly as we can. On behalf of the men and women who worked tirelessly to get your power back - thank you!



As always, we thank you for your patience and kindness. Our community is stronger together and we're proud to be a part of yours.



Austin
I&M Storm Restoration Team

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How We Practice



- I&M targets two tabletop, or “mock” events per year to engage certain levels of Incident Command with practice scenarios.
- The goal of I&M tabletop exercises is to test and review processes involved with, and responses to, actual situations the players face.
- December 2022 “Ice Event” tabletop exercise included a broad audience of participants, where the Sections worked through an ice event.
- June 2023 “Wind Event” tabletop exercise focused on process detail by incorporating multiple situation “injects” to test response and communication in each ICS Section.
- I&M is planning another tabletop exercise for Nov.7 2023, focusing on an even deeper level of Section engagement.

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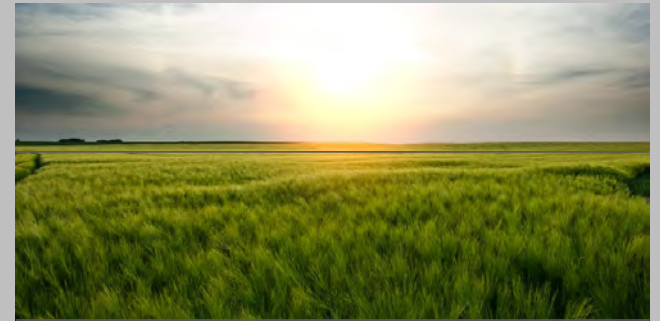


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Questions

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Storm Response Meeting

September 22, 2023

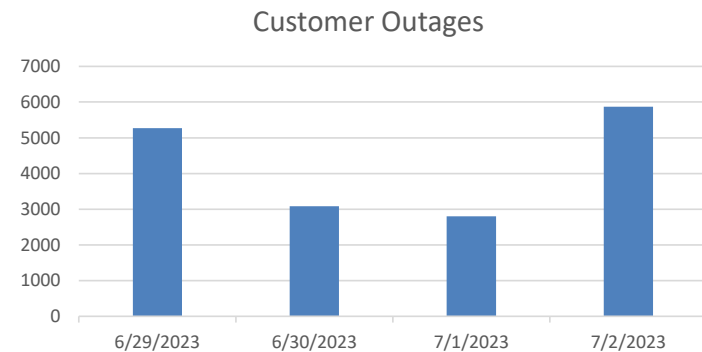


June 29, 2023 Storm Event Statistics

- June 29 to July 2 saw significant weather throughout Indiana, although it was less impactful in NIPSCO's service territory than in other areas of the state
- Customer Outages
 - Total customer outages: 5,270
 - Daily Average Restoration Time = 125 minutes
 - Total outage events: 81
 - Note: 2,524 customer outages on 2 outage events were due to third party vehicle damage

June 29 Statistics

CUST OUT	5,270
SAIDI	1.37
SAIFI	0.011
CAIDI	125.38



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June 29, 2023 Storm Preparation and Response

- **NIPSCO constantly monitors the weather and has a process in place to notify potentially impacted departments, as well as to notify its customers**
- **On June 29, the first internal storm notification was distributed at 6:18 AM**

➤ Various chances for showers and thunderstorms are expected across the territory throughout the day, some of which will likely be strong to severe with the potential for large hail, damaging wind gusts up to 60-70 mph, and possibly a few isolated tornadoes.

- T-storms possible as early as this morning for the northern and eastern portions of the territory.
- After 2pm – increased likelihood of thunderstorms and impactful weather mainly for the western/southern portions of the territory.

➤ Thunderstorm activity will gradually weaken and become less widespread as the evening progresses, and mostly dry conditions are expected for the overnight period. Total rainfall today: 0.10-0.25" with locally heavier amounts as high as 0.50-0.75", especially in southwestern areas where heavier storms track across the same areas. Winds unrelated to thunderstorms today will be out of the south-southwest at 7-13 mph with gusts to 15-25 mph. Winds will then become variable to southeast at 5-12 mph late evening and overnight.

- **The Communications team enacted its external plan the night before the storm**
 - At 7:00 PM, a storm preparedness social media post was made
 - Potential messaging was shared internally for review if needed
 - The team prepared to post appropriate social media banners if needed
 - The typical plan to make updates was ready as needed
- **These actions were consistent with NIPSCO's storm preparedness plan, both summer and winter**

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June 29, 2023 Storm Preparation and Response



- A Mutual Assistance request from Great Lakes Mutual Assistance Group was sent out asking for 350 Distribution Line full-time equivalents (“FTEs”) for Duke Energy Indiana and NIPSCO released 36 FTEs and Com Ed released 147 FTEs to report to Duke.

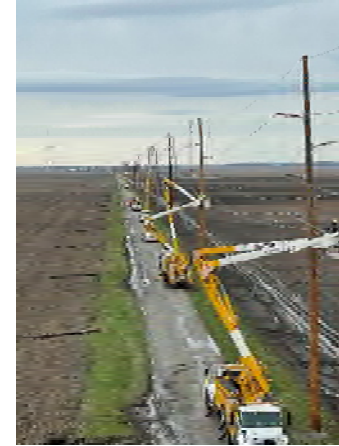
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NIPSCO | NIPSCO.com |   

March 31st Storm

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NIPSCO | NIPSCO.com |   



- Late on the evening of March 31 and into Saturday, April 1, a high wind/storm event impacted the NIPSCO service territory.
- NIPSCO experienced three confirmed tornados and two probable EF0s tornados.
- 27,700 customers lost power during the event, and NIPSCO replaced over 270 damaged transmission and distribution poles.

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NIPSCO | NIPSCO.com |   

March Storm Response

- 99% of customers were restored by 7:00 AM Monday, April 3, with all remaining customers restored by 7:00 PM Tuesday, April 4.
- All 138 kV and 69 kV transmission lines were returned to service on Thursday, April 7.
- Deployed internal and contractor line crews and forestry crews throughout the service territory
 - At the peak of the response, over 300 resources were deployed in restoration efforts
 - Crews worked 16 hours on and 8 hours off
 - Strong focus on safety during high-risk restoration event



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NIPSCO | NIPSCO.com |   

March Storm Response - Communications

The screenshot shows the 'POWER OUTAGES' section of the NIPSCO website. It features a header with the title 'POWER OUTAGES' and a sub-header 'Check outage status or report a power outage'. Below this, there is a paragraph explaining the service and a section for 'Current power outages' with two bullet points: 'This map is updated every 10 minutes' and 'You can view reported power outages in your area by searching for your city or zip code, selecting a pin on the map, or by clicking a city on the table'. A search bar is located above a map of the NIPSCO service area, which shows several green pins indicating power outages. To the right of the map is a 'Customer Outages' table.

City	Total Affected
Show All Cities	
EARL PARK	1
MUNSTER	1
SYRACUSE	1
VALPARAISO	1
Total NIPSCO Customers Affected	4

- Provided frequent information updates to customer service representatives to be able to inform customers of efforts
- Updated web banner and provided social media updates
- In hardest hit areas, NIPSCO deployed Emergency Response trailer with Communications experts onsite

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March Storm Response – Mutual Aid and Supply Chain

- NIPSCO generated a mutual assistance request and received support from contract crews based in Michigan
- NIPSCO worked with suppliers from four states to ship material to make repairs
 - Direct sourced (98) 65 foot and taller poles from Illinois, Georgia, and Wisconsin.
 - 172 poles were sourced through NIPSCO's normal supply chain
 - Direct sourced (100) 138kV insulators directly from the vendor in North Carolina who manufactured them and shipped them via batches to meet the Company's needs.
- Leveraged industry trade organizations to overcome some supply chain challenges



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Appendix

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NIPSCO | NIPSCO.com |   

What challenges did your utility face in the storm restoration process? Did you have concerns with staffing or supply chain limitations?

- Regarding the June 29 storm, because NIPSCO was minimally impacted, the Company did not face any supply chain or staffing issues.

How did you communicate with customers before, during, and after the storms?

- NIPSCO has a storm communications plan, which includes internal and external updates, specifically locational ETRs for customers as soon as available
- Web banners and social media posts are prepared and posted as needed
- Updates are communicated internally and externally as needed
- Particular focus is placed on keeping customer service representatives to allow them to effectively communicate with customers

Were there any gaps in your outage/storm restoration process that you recognized/will address going forward?

- NIPSCO holds an After-Action Review (AAR) for each major storm event to identify areas of improvement
 - Primary area for continuous improvement is focused on rising technology to help with more accurate estimated time of restoration
 - Training up for damage assessors

When weather reports indicate your service territory may be affected by incoming storms, what work is done proactively to prepare with your team and your contractors?

- NIPSCO follows meteorology reports daily
- As impending weather gets closer, the band of potential impact is narrowed
- NIPSCO communicates internally to potentially impacted departments and holds storm preparedness calls as needed
- Staffing needs are considered, and staff are “held” as needed or put on notice of potential activity
- As discussed previously, proactive customer outreach is undertaken via a variety of methods, including social media
- Call Center employees are updated and provided with appropriate information to handle customer contacts

How was mutual aid between utilities a factor in your storm restoration efforts?

- Proactive engagement for Mutual Aid
 - Resources are not released until NIPSCO knows how its service territory will be impacted (this is standard in the industry)
 - NIPSCO did provide resources to Duke during the June 29 storm event

Do you have any feedback on the outage reporting requirements found in Indiana Administrative Code 170 IAC 4-1-23?

- NIPSCO has defined processes and procedures that are aligned with current Commission reporting requirements
- The kinds of events that need to be reported remain appropriate
- And the types of information reported and interval for reporting are reasonable

FILED
August 1, 2023
INDIANA UTILITY
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**PETITION OF INDIANAPOLIS POWER & LIGHT)
COMPANY (“IPL”) FOR AUTHORITY TO INCREASE)
RATES AND CHARGES FOR ELECTRIC UTILITY)
SERVICE AND FOR APPROVAL OF: (1) ACCOUNTING)
RELIEF, INCLUDING IMPLEMENTATION OF MAJOR)
STORM DAMAGE RESTORATION RESERVE ACCOUNT;)
(2) REVISED DEPRECIATION RATES; (3) THE)
INCLUSION IN BASIC RATES AND CHARGES OF THE)
COSTS OF CERTAIN PREVIOUSLY APPROVED) **CAUSE NO. 44576**
QUALIFIED POLLUTION CONTROL PROPERTY; (4))
IMPLEMENTATION OF NEW OR MODIFIED RATE)
ADJUSTMENT MECHANISMS TO TIMELY RECOGNIZE)
FOR RATEMAKING PURPOSES LOST REVENUES FROM)
DEMAND-SIDE MANAGEMENT PROGRAMS AND)
CHANGES IN (A) CAPACITY PURCHASE COSTS; (B))
REGIONAL TRANSMISSION ORGANIZATION COSTS;)
AND (C) OFF SYSTEM SALES MARGINS; AND (5) NEW)
SCHEDULES OF RATES, RULES AND REGULATIONS)
FOR SERVICE.)**

**IN THE MATTER OF THE INDIANA UTILITY)
REGULATORY COMMISSION'S INVESTIGATION INTO) **CAUSE NO. 44602**
INDIANAPOLIS POWER & LIGHT COMPANY'S)
ONGOING INVESTMENT IN, AND OPERATION AND)
MAINTENANCE OF, ITS NETWORK FACILITIES)**

**PETITIONER INDIANAPOLIS POWER & LIGHT COMPANY
COMPLIANCE FILING:
MAJOR STORM DAMAGE RESTORATION RESERVE REPORT**

Petitioner Indianapolis Power & Light Company d/b/a AES Indiana (“AES Indiana”), by counsel and in compliance with the Order in this Cause dated March 16, 2016 (pp. 64), hereby files the attached Major Storm Damage Restoration Reserve Report.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Jeffrey Peabody", is written over a horizontal line.

By _____
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Jeffrey M. Peabody (No. 28000-53)
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Attorneys for AES INDIANA

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing was served upon the following via electronic email, hand delivery or First Class, United States Mail, postage prepaid this 1st day of August 2023 to:

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Jeffrey M. Peabody

August 1, 2023

Ms. Beth E. Heline
General Counsel
Indiana Utility Regulatory Commission
101 W. Washington Street, Suite 1500 East
Indianapolis, IN 46204

Re: June 29, 2023, Level 3 Major Storm Damage Restoration Reserve Report

Ms. Heline,

In compliance with the Indiana Utility Regulatory Commission's ("IURC") orders in Cause Nos. 44576 and 45029, Indianapolis Power & Light Company d/b/a AES Indiana ("AES Indiana") submits the enclosed Major Storm Damage Restoration Reserve Report. This report is also being filed as a compliance filing in Cause No. 44576.

On Thursday June 29, 2023, at 3:45 PM, the Indianapolis area experienced a severe thunderstorm that the National Weather Service later declared was a Derecho. A maximum wind gust of 70 MPH was recorded at the Indianapolis International Airport during this storm. Because of the winds associated with this Derecho, AES Indiana sustained significant damage to overhead distribution lines from trees. AES Indiana's restoration efforts to safely restore power to 81,265 customers spanned approximately 122 hours over 5 days. The first four days of the restoration event exceeded the IEEE 1366 threshold for Major Event Days. The Company made regular reports to the Commission starting Thursday evening and they continued until the restoration was completed on July 4th.

The restoration effort was affected by two additional waves of thunderstorms that moved across the Service Territory on the night of Friday June 30th and another on Sunday July 2nd. These two waves of storms caused delays in the safe restoration efforts while the weather moved through and resulted in additional customer outages which required diverting some resources to address large new outages. The Company estimates that the initial restoration effort was extended an additional 24 hours due to the additional two waves of storms. The first thunderstorm wave after the Derecho resulted in 7,500 additional customer outages and the second wave resulted in 10,000 additional customer outages.

Customer outages from the Derecho were spread across all of Marion County, with the heaviest damage concentrated in the northeast quadrant of the system where the tree canopy is the heaviest. Much of the damage to AES Indiana's poles and lines were from extensive vegetation damage from large trees and limbs that fell on AES Indiana's facilities from the Derecho winds. Over 700 tree dispatches were resolved by the Vegetation Management team. Resolving a single tree dispatch can take multiple crews, and anywhere from 15-20 minutes to more than a day, to remove a limb or whole trees from the lines, in order to allow line crews to safely make repairs to the lines. Additional tree crews were brought in as part of the Mutual Assistance resources the Company obtained.

AES Indiana was aware of the risk for severe weather. The NWS Storm Prediction Center Convection Forecast early Thursday morning showed the Indianapolis area under a Slight Risk for severe weather with an Enhanced Risk area just to the west over southwest Indiana and across much of Central Illinois. Based

on this risk for a severe weather event, AES Indiana began preparing for restoration efforts. The AES Indiana Operations team was monitoring the weather to the west in Iowa and Illinois throughout the day and AES Indiana crews and on-property contract line crews were notified that they would likely be held over Thursday evening in the event severe weather moved into our area. Calls were also made to the Company's line contractors to request additional resources. Mutual Assistance resources were obtained from Tennessee, Illinois, and Ohio. Significant resources were in place and ready when the Derecho hit late Thursday afternoon.

A total of 768 people safely supported this substantial restoration effort. The total field resources deployed for this multi-day restoration effort, including AES Indiana linemen, contractors Mutual Assistance linemen, and vegetation crews was 629 people working in the field with an additional 139 people in support roles in the office and dispatch centers. The estimated O&M cost of this storm restoration event is currently \$3,500,000. This estimate is based on invoices received from the Mutual Assistance contractors and estimated costs for not yet submitted invoices. It also includes actual charges and estimates for support and logistic costs, such as lodging and meals for the Mutual Assistance crews. The total excludes AES Indiana base labor costs but does include internal AES Indiana costs charged to the storm such as material, overtime charges for AES Indiana labor, and estimated distributed charges. The final actual cost will vary from the current estimate, and only final, actual costs will be charged to the Major Storm Reserve regulatory account.

If you have any questions, please call me at (317) 261-8983 or email Chad.Rogers@aes.com.

Respectfully submitted,



Chad A. Rogers
Senior Manager, Regulatory & RTO Policy
AES Indiana

Major Storm Damage Restoration Reserve Report

Qualifying Criteria Verification	
Greater than 10% affected	<u> X </u>
Outside assistance used	<u> X </u>
Greater than 48 hour restoration	<u> X </u>
Level 3 or Level 4 Event	<u> X </u>
Met IEEE-1366 MED Criteria	<u> X </u>

Type of Storm Damage: [Check all that apply]

Tornado___ Derecho X Wind X Lightning X Snow___ Ice ___ Extreme Heat ___ Extreme Cold ___

Storm Dates: 6/29/23 - 7/ 4/23

Declared Storm Level: 3

Restoration Duration: 122 Hours

Total Customers Affected: 81,265

Total CMI: 155,278,919 Minutes

of Qualified MED Days: 4

Max. Wind Speed: 70 MPH

of Outage Incidents Reported: 2,640

of Lightning Strikes: 320

Full Feeder Lockouts 27

Mid-Point Recloser Lockouts: 26

of Broken Poles: 53

Transformers Replaced: OH 35 UG 4

O&M Expense Cost of Storm: \$ 3.5 MILLION Actual Estimated X (excludes base labor)

Acronyms:

- CMI Customer Minutes of Interruption
- IEEE Institute of Electrical and Electronics Engineers
- MED Major Event Day
- OH Overhead
- UG Underground

Note: Attachment MDE-8 is Confidential

Note: Attachment MDE-9 is Confidential

FitchRatings

SPECIAL REPORT

North American Fall Henry Hub Natural Gas Outlook (Strong Production, Projections for a Warm Winter Weigh on Prices)

Wed 13 Sep, 2023 - 10:13 AM ET

Due to expected mild winter weather from the El Niño phenomenon and continued production growth, Fitch Ratings revised downward our Henry Hub price deck for 2023 to \$2.80 per thousand cubic feet (mcf) and \$3.25/mcf in 2024 from \$3.00/mcf in 2023 and \$3.50/mcf in 2024. We maintain our long-term price assumption for Henry Hub unchanged at \$2.75/mcf. Fitch concludes it is unlikely prices will improve in the near term beyond typical seasonal patterns and current strip pricing. Rated natural gas producers in the U.S. and Canada are generally protected from a short-term decline in prices through hedges and improved balance sheets. Henry Hub natural gas prices remain stubbornly low in 2023, although prices recovered from a \$2.00 low reached earlier in the year. Production continues to grow, although this will likely moderate as rig count declines have started to gain traction. Fitch believes the effects on production will not be strong enough to counter the potential of warm winter weather, despite the uncertain path of winter weather and production effects of a rig count decline.

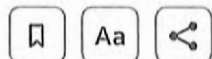
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Reuters

September 20, 2023 7:27 AM EDT · Updated 9 days ago



Pump jacks operate at sunset in an oil field in Midland, Texas U.S. August 22, 2018. REUTERS/Nick Oxford/File Photo [Acquire Licensing Rights](#)

Sept 20 (Reuters) - Bank of America on Tuesday said that while the heatwave in Texas almost halved the U.S. natural gas storage surplus, a mild winter could still drive stocks to records and push prices below \$2 per million British thermal units (mmBtu) in the first quarter of 2024.

The bank said the storage trajectory posed downside risks to its \$4 per mmBtu projection for 2024.

U.S. production was on track to rise from a record 98.1 billion cubic feet per day (bcfd) in 2022 to 102.7 bcf in 2023 and 104.9 bcf in 2024, according to the EIA.

Soaring temperatures pushed power demand to record levels multiple times in Texas this summer, prompting small spikes in natural gas prices in August, offsetting pressure from rising output.

Extreme heat boosts the amount of gas burned to produce power for cooling, especially in Texas, which gets most of its electricity from gas-fired plants.

On Tuesday, US natural gas futures settled at a near six-week high of \$2.848 per mmbtu on a decline in daily output and a rise in supply to the country's LNG export facilities.

However, gas inventories were still expected to finish the 2023-24 winter season near five-year highs, at 1.77 trillion cubic feet, analysts at the bank said in a note.

"If realized, this inventory path may cause Henry Hub gas to trade below our forecast of \$3.50/mmbtu (4Q23/1Q24) and below the current forward curve," the bank said.

Such a situation could also reignite the possibility of hitting storage constraints next year, it added.

Reporting by Anushree Mukherjee in Bengaluru; Editing by Alexandra Hudson

Our Standards: [The Thomson Reuters Trust Principles.](#)

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The Economy Forecast Agency (f)
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NATURAL GAS FORECAST 2023, 2024 AND 2025

2023/09/29. Gas price Today.

The price in US Dollars per MMBTU (1 million British thermal unit ≈ 27.096 m3), Henry Hub natural gas.

Actual Gas price equal to **2.94** Dollars. Today's range: 2.86-3.00. Previous day close: 2.95. Change for today -0.01, -0.34%.

↓ 2.94 -0.34%

Recent changes:

Period	2 Days	3 Days	1 Week	2 W	1 Month
Chg,%	+6.14%	+10.53%	+10.94%	+11.36%	+4.63%
Price	2.77	2.66	2.65	2.64	2.81

Checkout

Oil Price Forecast 2023, 2024-2026.

(<https://longforecast.com/oil-price-today-forecast-2017-2018-2019-2020-2021-brent-wti>)

CRUDE OIL PRICE (/OIL-PRICE-TODAY-FORECAST-2017-2018-2019-2020-2021-BRENT-WTI)

GOLD PRICE (/GOLD-PRICE-TODAY-FORECAST-2017-2018-2019-2020-2021-OUNCE-GRAM)

SILVER PRICE (/SILVER-PRICE-TODAY-FORECAST-2017-2018-2019-2020-2021-OUNCE-GRAM)

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HISTORICAL MORTGAGE RATES (/MORTGAGE-RATES-HISTORY-30-YEAR-15-YEAR)

Gas price Forecast For 2023, 2024, 2025, 2026 And 2027

Month	Open	Low-High	Close	Mo,%	Total,%
2023					
Sep	2.76	2.50-3.10	2.95	6.9%	6.9%
Oct	2.95	2.80-3.10	2.95	0.0%	6.9%
Nov	2.95	2.94-3.24	3.09	4.7%	12.0%
Dec	3.09	2.79-3.09	2.94	-4.9%	6.5%
2024					
Jan	2.94	2.94-3.28	3.12	6.1%	13.0%
Feb	3.12	2.78-3.12	2.93	-6.1%	6.2%
Mar	2.93	2.93-3.27	3.11	6.1%	12.7%
Apr	3.11	2.77-3.11	2.92	-6.1%	5.8%
May	2.92	2.92-3.26	3.10	6.2%	12.3%
Jun	3.10	2.76-3.10	2.91	-6.1%	5.4%
Jul	2.91	2.59-2.91	2.73	-6.2%	-1.1%
Aug	2.73	2.73-3.05	2.90	6.2%	5.1%
Sep	2.90	2.58-2.90	2.72	-6.2%	-1.4%
Oct	2.72	2.42-2.72	2.55	-6.3%	-7.6%
Nov	2.55	2.55-2.85	2.71	6.3%	-1.8%
Dec	2.71	2.71-3.02	2.88	6.3%	4.3%
2025					
Jan	2.88	2.57-2.88	2.70	-6.2%	-2.2%
Feb	2.70	2.70-3.01	2.87	6.3%	4.0%
Mar	2.87	2.87-3.20	3.05	6.3%	10.5%
Apr	3.05	3.05-3.40	3.24	6.2%	17.4%
May	3.24	2.90-3.24	3.05	-5.9%	10.5%
Jun	3.05	3.05-3.40	3.24	6.2%	17.4%
Jul	3.24	2.89-3.24	3.04	-6.2%	10.1%
Aug	3.04	2.71-3.04	2.85	-6.3%	3.3%
Sep	2.85	2.55-2.85	2.68	-6.0%	-2.9%

Month	Open	Low-High	Close	Mo,%	Total,%
2025 Continuation					

LIBOR RATE (/LIBOR-FORECAST-2017-2018-2019)

EURIBOR RATE (/EURIBOR-FORECAST-2017-2018-2019)

EXCHANGE RATES

EURO TO DOLLAR (/EURO-TO-DOLLAR-EUR-USD-FORECAST-2017-2018-2019-2020)

AUSTRALIAN DOLLAR (/AUSTRALIAN-DOLLAR-AUD-TO-USD-FORECAST-2017-2018-2019-2020-2021)

BRITISH POUND (/POUND-TO-DOLLAR-GBP-USD-FORECAST-FOR-2017-2018-2019-2020-AND-2021)

BRAZILIAN REAL (/BRAZILIAN-REAL-FORECAST-2017-2018-2019-2020-2021-USD-BRL)

CANADIAN DOLLAR (/CANADIAN-DOLLAR-FORECAST-2017-2018-2019-2020-2021-USD-CAD)

CHINESE YUAN (/CHINESE-YUAN-FORECAST-2017-2018-2019-2020-2021-USD-TO-RMB-AND-RMB-TO-USD)

INDIAN RUPEE (/USD-TO-INR-FORECAST-2017-2018-2019-2020-2021-INDIAN-RUPEE)

INDONESIAN RUPIAH (/USD-TO-IDR-FORECAST-TODAY)

JAPANESE YEN (/USD-JPY-FORECAST-2017-2018-2019-2020-2021-DOLLAR-YEN)

MALAYSIAN RINGGIT (/USD-TO-MYR-FORECAST)

MEXICAN PESO (/DOLLAR-TO-PESO-

Oct	2.68	2.68-2.99	2.85	6.3%	3.3%
Nov	2.85	2.85-3.18	3.03	6.3%	9.8%
Dec	3.03	3.03-3.38	3.22	6.3%	16.7%
2026					
Jan	3.22	3.22-3.59	3.42	6.2%	23.9%
Feb	3.42	3.42-3.81	3.63	6.1%	31.5%
Mar	3.63	3.26-3.63	3.43	-5.5%	24.3%
Apr	3.43	3.20-3.54	3.37	-1.7%	22.1%
May	3.37	3.22-3.56	3.39	0.6%	22.8%
Jun	3.39	3.39-3.78	3.60	6.2%	30.4%
Jul	3.60	3.21-3.60	3.38	-6.1%	22.5%
Aug	3.38	3.01-3.38	3.17	-6.2%	14.9%
Sep	3.17	2.82-3.17	2.97	-6.3%	7.6%
Oct	2.97	2.97-3.31	3.15	6.1%	14.1%
Nov	3.15	3.15-3.52	3.35	6.3%	21.4%
Dec	3.35	2.98-3.35	3.14	-6.3%	13.8%
2027					
Jan	3.14	2.80-3.14	2.95	-6.1%	6.9%
Feb	2.95	2.73-3.01	2.87	-2.7%	4.0%
Mar	2.87	2.87-3.20	3.05	6.3%	10.5%
Apr	3.05	2.72-3.05	2.86	-6.2%	3.6%
May	2.86	2.86-3.19	3.04	6.3%	10.1%
Jun	3.04	2.73-3.04	2.87	-5.6%	4.0%
Jul	2.87	2.87-3.20	3.05	6.3%	10.5%
Aug	3.05	2.72-3.05	2.86	-6.2%	3.6%
Sep	2.86	2.55-2.86	2.68	-6.3%	-2.9%
Oct	2.68	2.39-2.68	2.52	-6.0%	-8.7%

FORECAST-2017-2018-2019-2020-2021-USD-MXN)

NEW ZEALAND DOLLAR (/NZD-TO-USD-FORECAST-2017-2018-2019-2020-2021-NEW-ZEALAND-DOLLAR)

PAKISTANI RUPEE (/USD-TO-PKR-FORECAST)

PHILIPPINE PESO (/USD-TO-PHP-TODAY-FORECAST)

POLISH ZLOTY (/USD-TO-PLN-FORECAST)

RUSSIAN RUBLE (/RUBLE-FORECAST-2017-2018-2019-2020-2021-USD-TO-RUB)

SINGAPORE DOLLAR (/SINGAPORE-DOLLAR-FORECAST-2017-2018-2019-2020-2021-USD-TO-SGD)

SOUTH KOREAN WON (/DOLLAR-TO-WON-USD-TO-KRW-FORECAST-2017-2018-2019-2020-2021)

SOUTH AFRICAN RAND (/DOLLAR-TO-RAND-FORECAST-2017-2018-2019-2020-2021-USD-TO-ZAR)

SWEDISH KRONA (/USD-TO-SEK)

SWISS FRANC (/USD-CHF-FORECAST-2017-2018-2019-2020-2021-DOLLAR-TO-SWISS-FRANC)

THAI BAHT (/USD-TO-BHT-TODAY-FORECAST)

TURKISH LIRA (/USD-TO-TRY-FORECAST-TODAY)

CONVERTER (/LF-CURRENCY-CONVERTER)

DOLLAR INDEX (DXY) (/DOLLAR-INDEX)

Gas price forecast for **September 2023**.

In the beginning price at 2.76 Dollars. High price 3.10, low 2.50. The average for the month 2.83. The Gas price forecast at the end of the month 2.95, change for September 6.9%.

Natural gas price forecast for October 2023.

In the beginning price at 2.95 Dollars. High price 3.10, low 2.80. The average for the month 2.95. The Gas price forecast at the end of the month 2.95, change for October 0.0%.

Gas price forecast for November 2023.

In the beginning price at 2.95 Dollars. High price 3.24, low 2.94. The average for the month 3.06. The Gas price forecast at the end of the month 3.09, change for November 4.7%.

Natural gas price forecast for December 2023.

In the beginning price at 3.09 Dollars. High price 3.09, low 2.79. The average for the month 2.98. The Gas price forecast at the end of the month 2.94, change for December -4.9%.

Gas price forecast for January 2024.

In the beginning price at 2.94 Dollars. High price 3.28, low 2.94. The average for the month 3.07. The Gas price forecast at the end of the month 3.12, change for January 6.1%.

Natural Gas Price Forecast For Tomorrow And Month. (<https://30rates.com/natgas>)

Platinum Price Forecast 2023, 2024-2026. (<https://longforecast.com/platinum>)

Natural gas price forecast for February 2024.

In the beginning price at 3.12 Dollars. High price 3.12, low 2.78. The average for the month 2.99. The Gas price forecast at the end of the month 2.93, change for February -6.1%.

Gas price forecast for March 2024.

In the beginning price at 2.93 Dollars. High price 3.27, low 2.93. The average for the month 3.06. The Gas price forecast at the end of the month 3.11, change for March 6.1%.

Natural gas price forecast for April 2024.

In the beginning price at 3.11 Dollars. High price 3.11, low 2.77. The average for the month 2.98. The Gas price forecast at the end of the month 2.92, change for April -6.1%.

Gas price forecast for May 2024.

In the beginning price at 2.92 Dollars. High price 3.26, low 2.92. The average for the month 3.05. The Gas price forecast at the end of the month 3.10, change for May 6.2%.

Natural gas price forecast for June 2024.

In the beginning price at 3.10 Dollars. High price 3.10, low 2.76. The average for the month 2.97. The Gas price forecast at the end of the month 2.91, change for June -6.1%.

Gas price forecast for July 2024.

In the beginning price at 2.91 Dollars. High price 2.91, low 2.59. The average for the month 2.79. The Gas price forecast at the end of the month 2.73, change for July -6.2%.

Natural gas price forecast for August 2024.

In the beginning price at 2.73 Dollars. High price 3.05, low 2.73. The average for the month 2.85. The Gas price forecast at the end of the month 2.90, change for August 6.2%.

Gas price forecast for September 2024.

In the beginning price at 2.90 Dollars. High price 2.90, low 2.58. The average for the month 2.78. The Gas price forecast at the end of the month 2.72, change for September -6.2%.

[Click here to read more](#)

Natural gas price forecast for October 2025.

In the beginning price at 2.68 Dollars. High price 2.99, low 2.68. The average for the month 2.80. The Gas price forecast at the end of the month 2.85, change for October 6.3%.

Read more

SHARE THIS  (<https://twitter.com/intent/tweet?url=https://longforecast.com/natural-gas-forecast-2017-2018-2019>)  (<https://www.facebook.com/sharer.php?u=https://longforecast.com/natural-gas-forecast-2017-2018-2019>)  (whatsapp://send?text=https://longforecast.com/natural-gas-forecast-2017-2018-2019)  (<https://www.linkedin.com/shareArticle?mini=true&url=https://longforecast.com/natural-gas-forecast-2017-2018-2019>)

All forecasts are updated on daily basis. Only the mortgage rates predictions (<https://longforecast.com/mortgage-interest-rates-forecast-2017-2018-2019-2020-2021-30-year-15-year>) and history are updated weekly.

EXCHANGE CROSS-RATES

AUD - INR (/AUD-TO-INR-FORECAST-2017-2018-2019-2020-2021-AUSTRALIAN-DOLLAR-TO-INDIAN-RUPEE)

AUD - JPY (/AUD-TO-JPY-FORECAST-2017-2018-2019-2020-2021-AUSTRALIAN-DOLLAR-TO-JAPANESE-YEN)

AUD - EUR (/AUD-TO-EURO-FORECAST-2017-20-2018-2019-2020-2021-EURO-TO-AUD)

CAD - INR (/CAD-TO-INR-FORECAST-2017-2018-2019-2020-2021-CANADIAN-DOLLAR-TO-RUPEE)

GBP - AUD (/GBP-TO-AUD-FORECAST-2017-2018-2019-2020-2021-AUD-TO-GBP-PREDICTIONS)

GBP - EUR (/POUND-TO-EURO-FORECAST-2017-2018-2019-2020-2021-GBP-TO-EUR-AND-EUR-TO-GBP)

GBP - INR (/GBP-TO-INR-FORECAST-2017-2018-2019-2020-2021-POUND-TO-RUPEE)

EUR - CAD (/EURO-TO-CAD-FORECAST-2017-2018-2019-2020-2021-EURO-TO-CANADIAN-DOLLAR)

EUR - CHF (/EUR-CHF-FORECAST-2017-2018-2019-2020-2021-EURO-TO-SWISS-FRANC)

EUR - INR (/EURO-TO-INR-FORECAST-2017-2018-2019-2020-2021-EUR-TO-INDIAN-RUPEE)

EUR - JPY (/EUR-JPY-FORECAST-2017-2018-2019-2020-2021-EURO-TO-YEN)

STEO Current/Previous Forecast Comparisons: U.S. Energy Production and Consumption Summary

Current Forecast: September 12, 2023; Previous Forecast: August 8, 2023

	2022				2023				2024				Year				Growth Rate		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024
U.S. Energy Production																			
Crude Oil Production (million barrels per day)																			
Current	11.52	11.77	12.05	12.30	12.63	12.71	12.86	12.94	13.03	13.09	13.15	13.36	11.27	11.91	12.78	13.16	5.7%	7.3%	2.9%
Previous	11.52	11.77	12.05	12.30	12.63	12.67	12.81	12.93	12.98	13.01	13.08	13.27	11.27	11.91	12.76	13.09	5.7%	7.1%	2.6%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.4%	0.1%	0.4%	0.6%	0.5%	0.7%	0.0%	0.0%	0.2%	0.5%			
Dry Natural Gas Production (billion cubic feet per day)																			
Current	95.1	97.6	99.5	100.3	102.1	102.8	102.7	103.1	104.3	104.7	104.9	105.9	94.6	98.1	102.7	104.9	3.8%	4.7%	2.2%
Previous	95.1	97.6	99.5	100.3	102.1	102.8	103.4	103.6	104.0	103.9	104.0	104.6	94.6	98.1	103.0	104.1	3.8%	4.9%	1.1%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.6%	-0.5%	0.2%	0.7%	0.9%	1.2%	0.0%	0.0%	-0.3%	0.8%			
Coal Production (million short tons)																			
Current	149.0	145.7	154.3	148.3	151.5	146.6	150.9	134.2	122.2	109.1	119.9	113.3	578.1	597.2	583.1	464.5	3.3%	-2.4%	-20.4%
Previous	149.0	145.7	154.3	148.3	151.5	146.6	147.9	132.4	120.6	110.7	123.0	117.6	578.1	597.2	578.4	472.0	3.3%	-3.1%	-18.4%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	1.3%	1.3%	-1.5%	-2.6%	-3.7%	0.0%	0.0%	0.8%	-1.6%			
U.S. Energy Consumption																			
Petroleum and Other Liquid Fuels Consumption (million barrels per day)																			
Current	20.1	20.0	20.1	19.8	19.7	20.4	20.2	20.3	20.0	20.2	20.6	20.4	19.9	20.0	20.1	20.3	0.6%	0.6%	0.8%
Previous	20.2	20.3	20.5	20.2	20.0	20.7	20.5	20.6	20.5	20.7	21.0	20.8	19.9	20.3	20.5	20.7	2.0%	0.9%	1.4%
Percent Change	-0.6%	-1.3%	-1.8%	-1.6%	-1.7%	-1.4%	-1.5%	-1.7%	-2.3%	-2.0%	-2.2%	-2.1%	0.0%	-1.3%	-1.6%	-2.2%			
Natural Gas Consumption (billion cubic feet per day)																			
Current	104.9	76.2	80.8	92.6	103.1	78.0	84.6	93.3	103.2	76.6	83.5	92.1	84.0	88.6	89.7	88.8	5.4%	1.3%	-1.0%
Previous	104.8	76.1	80.8	92.6	103.0	78.9	83.6	92.0	103.2	75.6	82.3	90.4	83.9	88.5	89.3	87.9	5.5%	0.9%	-1.6%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-1.1%	1.1%	1.5%	0.0%	1.3%	1.5%	1.9%	0.1%	0.0%	0.4%	1.1%			
Electricity Retail Sales (billion kilowatthours)																			
Current	945	938	1,114	911	917	900	1,123	917	948	922	1,144	920	3,806	3,909	3,857	3,933	2.7%	-1.3%	2.0%
Previous	945	938	1,114	911	917	903	1,114	916	948	924	1,140	919	3,806	3,909	3,850	3,931	2.7%	-1.5%	2.1%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-0.3%	0.8%	0.1%	-0.1%	-0.3%	0.3%	0.1%	0.0%	0.0%	0.2%	0.0%			
Total Energy Consumption (quadrillion Btu)																			
Current	16.54	23.43	24.92	25.14	25.37	23.56	25.04	24.94	26.05	23.51	25.23	25.01	97.74	90.03	98.91	99.80	-7.9%	9.9%	0.9%
Previous	26.48	23.81	24.86	25.14	25.53	23.75	25.02	25.09	26.30	23.76	25.38	25.18	97.74	100.29	99.38	100.62	2.6%	-0.9%	1.2%
Percent Change	-37.6%	-1.6%	0.2%	0.0%	-0.6%	-0.8%	0.1%	-0.6%	-1.0%	-1.0%	-0.6%	-0.7%	0.0%	-10.2%	-0.5%	-0.8%			
U.S. Macroeconomic and Weather																			
Real Gross Domestic Product (billion chained 2012 dollars)																			
Current	19,924	19,895	20,055	20,182	20,283	20,404	20,515	20,592	20,634	20,692	20,761	20,838	19,610	20,014	20,448	20,731	2.1%	2.2%	1.4%
Previous	19,924	19,895	20,055	20,182	20,283	20,359	20,427	20,475	20,524	20,589	20,669	20,748	19,610	20,014	20,386	20,633	2.1%	1.9%	1.2%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.4%	0.6%	0.5%	0.5%	0.4%	0.4%	0.0%	0.0%	0.3%	0.5%			
Manufacturing Production Index (index 2012 = 100)																			
Current	100.1	100.8	100.9	100.0	99.9	100.4	100.0	99.3	98.9	98.9	99.2	99.6	97.7	100.5	99.9	99.2	2.9%	-0.6%	-0.7%
Previous	100.1	100.8	100.9	100.0	99.9	100.4	100.2	100.2	100.1	100.1	100.5	100.9	97.7	100.5	100.2	100.4	2.9%	-0.3%	0.3%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.2%	-0.9%	-1.2%	-1.2%	-1.3%	-1.2%	0.0%	0.0%	-0.3%	-1.3%			
Heating Degree Days																			
Current	2,145	490	54	1,551	1,920	485	58	1,461	2,004	472	75	1,454	3,934	4,240	3,924	4,005	7.8%	-7.4%	2.1%
Previous	2,147	491	54	1,552	1,921	486	69	1,461	2,005	472	75	1,454	3,934	4,243	3,938	4,006	7.9%	-7.2%	1.7%
Percent Change	-0.1%	-0.1%	0.0%	-0.1%	-0.1%	-0.2%	-16.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.4%	0.0%			
Cooling Degree Days																			
Current	47	466	952	90	68	363	946	104	50	444	968	105	1,492	1,555	1,481	1,567	4.2%	-4.8%	5.8%
Previous	47	467	952	89	69	364	923	104	50	444	968	105	1,492	1,555	1,459	1,567	4.2%	-6.2%	7.4%
Percent Change	-0.7%	-0.2%	0.0%	0.5%	-0.3%	-0.3%	2.4%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.5%	0.0%			

Source: Energy Information Administration, Short-Term Energy Outlook (<http://www.eia.gov/outlooks/steo/>)

STEO Current/Previous Forecast Comparisons: International Crude Oil and Liquid Fuels

Current Forecast: September 12, 2023; Previous Forecast: August 8, 2023

	2022				2023				2024				Year			Growth Rate			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024
	2022				2023				2024				Year			Growth Rate			
World Crude Oil and Liquid Fuels Production (million barrels per day)																			
OECD (Organization for Economic Cooperation and Development) Production																			
Current	31.75	32.00	32.59	33.03	33.48	33.70	34.29	34.76	34.91	34.69	34.94	35.59	31.14	32.35	34.06	35.03	3.9%	5.3%	2.9%
Previous	31.68	31.95	32.53	32.95	33.47	33.75	34.08	34.63	34.79	34.60	34.83	35.41	31.14	32.28	33.99	34.91	3.7%	5.3%	2.7%
Percent Change	0.2%	0.2%	0.2%	0.2%	0.0%	-0.2%	0.6%	0.4%	0.4%	0.3%	0.3%	0.5%	0.0%	0.2%	0.2%	0.4%			
OPEC (Organization of the Petroleum Exporting Countries) Production																			
Current	33.75	33.76	34.71	34.43	33.95	33.71	32.70	32.98	33.76	33.78	33.87	33.61	31.66	34.17	33.33	33.76	7.9%	-2.5%	1.3%
Previous	33.75	33.76	34.71	34.43	33.95	33.71	32.91	33.33	33.96	33.98	34.07	33.81	31.66	34.17	33.47	33.96	7.9%	-2.0%	1.5%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.6%	-1.1%	-0.6%	-0.6%	-0.6%	-0.6%	0.0%	0.0%	-0.4%	-0.6%			
Non-OPEC Production																			
Current	65.21	65.11	66.14	66.64	67.05	67.52	68.26	68.54	68.44	68.89	69.37	69.78	64.05	65.78	67.85	69.12	2.7%	3.1%	1.9%
Previous	65.14	65.05	66.08	66.57	67.05	67.60	68.13	68.50	68.36	68.85	69.31	69.66	64.05	65.71	67.82	69.05	2.6%	3.2%	1.8%
Percent Change	0.1%	0.1%	0.1%	0.1%	0.0%	-0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	0.1%	0.0%	0.1%			
Total World Production																			
Current	98.96	98.87	100.85	101.07	101.00	101.23	100.95	101.52	102.20	102.67	103.24	103.39	95.71	99.94	101.18	102.88	4.4%	1.2%	1.7%
Previous	98.88	98.81	100.79	101.00	101.00	101.31	101.03	101.83	102.33	102.83	103.38	103.47	95.71	99.88	101.30	103.00	4.4%	1.4%	1.7%
Percent Change	0.1%	0.1%	0.1%	0.1%	0.0%	-0.1%	-0.1%	-0.3%	-0.1%	-0.2%	-0.1%	-0.1%	0.0%	0.1%	-0.1%	-0.1%			
World Crude Oil and Liquid Fuels Consumption (million barrels per day)																			
OECD (Organization for Economic Cooperation and Development) Consumption																			
Current	45.63	45.11	46.22	45.63	45.19	45.40	46.16	46.43	45.60	45.19	46.14	46.15	44.81	45.65	45.80	45.77	1.9%	0.3%	-0.1%
Previous	45.76	45.38	46.58	45.95	45.53	45.59	46.31	46.63	46.06	45.60	46.60	46.58	44.81	45.92	46.02	46.21	2.5%	0.2%	0.4%
Percent Change	-0.3%	-0.6%	-0.8%	-0.7%	-0.7%	-0.4%	-0.3%	-0.4%	-1.0%	-0.9%	-1.0%	-0.9%	0.0%	-0.6%	-0.5%	-1.0%			
Non-OECD Consumption																			
Current	52.83	53.49	53.86	53.86	54.63	55.35	55.37	55.33	56.21	56.72	56.67	56.63	52.33	53.51	55.17	56.56	2.3%	3.1%	2.5%
Previous	52.83	53.49	53.86	53.86	54.63	55.38	55.36	55.32	56.23	56.75	56.69	56.65	52.33	53.51	55.18	56.58	2.3%	3.1%	2.5%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
China Consumption																			
Current	15.12	15.10	15.09	15.28	15.89	16.08	15.76	15.97	16.29	16.49	16.16	16.38	15.27	15.15	15.93	16.33	-0.8%	5.1%	2.5%
Previous	15.12	15.10	15.09	15.28	15.93	16.13	15.80	16.02	16.34	16.54	16.21	16.43	15.27	15.15	15.97	16.38	-0.8%	5.4%	2.6%
Percent Change	0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	-0.2%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	0.0%	0.0%	-0.3%	-0.3%			
Total World Consumption																			
Current	98.46	98.60	100.08	99.49	99.82	100.75	101.53	101.75	101.81	101.91	102.80	102.78	97.14	99.16	100.97	102.33	2.1%	1.8%	1.3%
Previous	98.59	98.87	100.45	99.80	100.16	100.97	101.67	101.95	102.29	102.36	103.29	103.24	97.14	99.43	101.19	102.80	2.4%	1.8%	1.5%
Percent Change	-0.1%	-0.3%	-0.4%	-0.3%	-0.3%	-0.2%	-0.1%	-0.2%	-0.5%	-0.4%	-0.5%	-0.4%	0.0%	-0.3%	-0.2%	-0.5%			
Closing Stocks (million barrels)																			
OECD Commercial Inventory																			
Current	2.604	2.657	2.736	2.767	2.746	2.822	2.798	2.774	2.790	2.836	2.848	2.844	2.640	2.767	2.774	2.844	4.8%	0.2%	2.5%
Previous	2.604	2.656	2.735	2.766	2.746	2.821	2.805	2.781	2.784	2.821	2.823	2.806	2.640	2.766	2.781	2.806	4.8%	0.6%	0.9%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%	0.2%	0.5%	0.9%	1.3%	0.0%	0.0%	-0.3%	1.3%			
OPEC Surplus Production Capacity and World Macroeconomic																			
OPEC Surplus Crude Oil Production Capacity (million barrels per day)																			
Current	3.12	2.58	1.67	2.29	3.15	3.58	4.82	4.60	4.37	4.28	4.24	4.51	5.18	2.41	4.04	4.35	-53.5%	67.9%	7.5%
Previous	3.12	2.58	1.67	2.29	3.15	3.58	4.63	4.20	4.17	4.08	4.04	4.31	5.18	2.41	3.90	4.15	-53.5%	61.7%	6.5%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	9.5%	4.8%	4.9%	4.9%	4.6%	0.0%	0.0%	3.8%	4.8%			
World GDP Growth (annualized percent change)																			
Current	4.3	3.4	3.3	2.2	2.7	3.1	2.7	2.7	2.4	2.3	2.6	3.0	6.3	3.3	2.8	2.6			
Previous	4.4	3.4	3.3	2.2	2.7	3.1	2.6	2.7	2.2	2.4	2.7	3.2	6.3	3.3	2.8	2.6			

Source: Energy Information Administration, Short-Term Energy Outlook (<http://www.eia.gov/outlooks/steo/>)

STEO Current/Previous Forecast Comparisons: U.S. Petroleum and Other Liquid Fuels
Current Forecast: September 12, 2023; Previous Forecast: August 8, 2023

	2022				2023				2024				Year				Growth Rate		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024
																	2024	2024	2024
U.S. Supply (million barrels per day)																			
Crude Oil Production																			
Current	11.52	11.77	12.05	12.30	12.63	12.71	12.86	12.94	13.03	13.08	13.15	13.36	11.27	11.91	12.78	13.16	5.7%	7.3%	2.9%
Previous	11.52	11.77	12.05	12.30	12.63	12.67	12.81	12.93	13.01	13.08	13.08	13.27	11.27	11.91	12.76	13.09	5.7%	7.1%	2.6%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.4%	0.1%	0.4%	0.6%	0.5%	0.7%	0.0%	0.0%	0.2%	0.5%			
Natural Gas Plant Liquids Production																			
Current	5.66	5.98	6.13	6.97	6.01	6.42	6.51	6.43	6.41	6.47	6.53	6.57	5.42	5.93	6.34	6.49	9.4%	6.9%	2.4%
Previous	5.61	5.92	6.09	5.90	6.01	6.36	6.31	6.30	6.30	6.40	6.44	6.44	5.42	5.88	6.25	6.39	8.4%	6.2%	2.3%
Percent Change	0.9%	0.7%	0.7%	1.2%	0.0%	1.0%	3.1%	2.0%	1.8%	1.2%	1.3%	2.0%	0.0%	0.9%	1.5%	1.6%			
Ethanol Production																			
Current	1.02	1.01	0.97	1.01	1.00	1.00	1.04	1.00	0.98	0.98	0.99	0.98	0.98	1.00	1.01	0.98	2.3%	0.8%	-2.6%
Previous	1.02	1.01	0.97	1.01	1.00	1.00	1.01	0.99	1.00	1.01	1.02	1.01	0.98	1.00	1.00	1.01	2.3%	-0.3%	0.8%
Percent Change	0.0%	-0.1%	0.0%	0.0%	0.0%	0.6%	2.6%	1.1%	-1.4%	-2.6%	-2.1%	-3.1%	0.0%	0.0%	1.1%	-2.3%			
Total Petroleum and Other Liquid Fuel Net Imports																			
Current	-0.48	-1.21	-1.37	-1.69	-1.64	-1.20	-1.74	-1.81	-1.80	-1.42	-1.61	-2.42	-0.06	-1.19	-1.60	-1.81	1824.8%	34.2%	13.4%
Previous	-0.74	-1.18	-1.32	-1.79	-1.64	-1.36	-1.51	-1.88	-1.81	-1.51	-1.57	-2.28	-0.06	-1.26	-1.60	-1.80	1935.5%	28.6%	12.4%
Percent Change	-35.7%	2.5%	4.1%	-5.4%	0.0%	-11.5%	15.0%	-3.6%	-0.6%	-6.4%	2.4%	5.9%	0.0%	-5.4%	0.1%	1.0%			
U.S. Consumption (million barrels per day)																			
Gasoline																			
Current	8.57	9.00	8.93	8.74	8.67	9.13	8.85	8.75	8.44	8.89	8.98	8.62	8.82	8.81	8.87	8.73	-0.1%	0.7%	-1.6%
Previous	8.47	9.00	8.88	8.75	8.67	9.15	9.00	8.82	8.60	9.08	9.13	8.84	8.82	8.78	8.91	8.91	-0.4%	1.5%	0.0%
Percent Change	1.1%	0.0%	0.5%	-0.1%	0.0%	-0.2%	-0.6%	-0.9%	-1.9%	-2.2%	-1.6%	-2.4%	0.0%	0.4%	-0.4%	-2.0%			
Distillate Fuel Oil																			
Current	4.22	3.97	3.91	4.00	4.01	3.93	3.81	3.97	4.06	3.95	3.89	4.02	3.97	4.03	3.93	3.98	1.3%	-2.4%	1.3%
Previous	4.14	3.89	3.86	3.96	4.01	3.84	3.75	3.98	4.07	3.96	3.89	4.02	3.97	3.96	3.89	3.98	-0.2%	-1.7%	2.3%
Percent Change	2.0%	1.9%	1.3%	1.2%	0.0%	2.2%	1.5%	-0.3%	-0.3%	-0.2%	-0.1%	0.1%	0.0%	1.5%	0.8%	-0.1%			
Jet Fuel																			
Current	1.45	1.61	1.60	1.58	1.55	1.67	1.69	1.64	1.64	1.78	1.83	1.78	1.37	1.56	1.64	1.76	13.9%	5.0%	7.3%
Previous	1.45	1.61	1.60	1.58	1.55	1.68	1.70	1.70	1.67	1.79	1.83	1.77	1.37	1.56	1.66	1.76	13.8%	6.4%	6.4%
Percent Change	0.2%	0.1%	-0.1%	0.1%	0.0%	-0.6%	-0.9%	-3.3%	-2.2%	-0.2%	0.3%	0.4%	0.0%	0.1%	-1.2%	-0.4%			
Hydrocarbon Gas Liquids																			
Current	3.77	3.18	3.17	3.32	3.40	3.36	3.36	3.68	3.82	3.34	3.39	3.73	3.44	3.36	3.45	3.57	-2.4%	2.8%	3.4%
Previous	3.87	3.43	3.48	3.57	3.68	3.66	3.53	3.83	4.00	3.48	3.63	3.67	3.44	3.59	3.67	3.75	4.3%	2.4%	2.0%
Percent Change	-2.7%	-7.4%	-8.8%	-7.0%	-7.6%	-8.1%	-4.6%	-3.9%	-4.7%	-4.1%	-6.5%	-3.7%	0.0%	-6.4%	-6.0%	-4.8%			
Total Petroleum and Other Liquid Fuels																			
Current	20.09	20.00	20.11	19.65	19.66	20.38	20.22	20.29	20.00	20.25	20.56	20.37	19.89	20.01	20.14	20.30	0.6%	0.6%	0.8%
Previous	20.22	20.27	20.47	20.16	20.00	20.68	20.53	20.65	20.47	20.67	21.03	20.82	19.89	20.28	20.47	20.75	2.0%	2.0%	1.4%
Percent Change	-0.6%	-1.3%	-1.8%	-1.6%	-1.7%	-1.4%	-1.5%	-1.7%	-2.3%	-2.0%	-2.2%	-2.1%	0.0%	-1.3%	-1.6%	-2.2%			
U.S. Closing Stocks (million barrels)																			
Crude Oil																			
Current	414.2	417.8	429.0	430.1	465.4	454.7	418.1	421.4	453.1	444.9	429.4	439.5	421.2	430.1	421.4	439.5	2.1%	-2.0%	4.3%
Previous	414.4	417.5	428.8	429.8	465.4	453.0	428.3	431.5	461.3	452.0	435.5	443.4	421.2	429.6	431.5	443.4	2.0%	0.5%	2.7%
Percent Change	0.0%	0.1%	0.0%	0.1%	0.0%	0.4%	-2.4%	-2.4%	-1.8%	-1.6%	-1.4%	-0.9%	0.0%	0.1%	-2.4%	-0.9%			
Total Gasoline																			
Current	238.5	221.0	209.5	224.4	225.3	223.2	216.7	233.6	234.8	232.0	219.7	231.1	232.2	224.4	233.6	231.1	-3.3%	4.1%	-1.1%
Previous	238.5	221.0	209.6	224.3	225.3	219.5	217.8	233.5	234.9	231.7	219.9	230.9	232.2	224.3	233.5	230.9	-3.4%	4.1%	-1.1%
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	-0.5%	0.0%	-0.1%	0.1%	-0.1%	0.1%	0.0%	0.0%	0.0%	0.1%			
Distillate Fuel Oil																			
Current	114.7	111.3	110.5	118.9	112.3	112.6	117.0	118.7	111.0	115.5	116.5	116.9	130.0	118.9	118.7	116.9	-8.6%	-0.2%	-1.5%
Previous	114.6	111.4	110.5	118.8	112.3	114.1	119.4	121.2	117.1	117.1	117.9	118.1	130.0	118.8	121.2	118.1	-8.6%	2.0%	-2.6%
Percent Change	0.0%	0.0%	0.0%	0.1%	0.0%	-1.3%	-2.0%	-2.1%	-1.5%	-1.4%	-1.2%	-1.1%	0.0%	0.1%	-2.1%	-1.1%			

Source: Energy Information Administration, Short-Term Energy Outlook (<http://www.eia.gov/outlooks/steo/>)

STEO Current/Previous Forecast Comparisons: U.S. Natural Gas
Current Forecast: September 12, 2023; Previous Forecast: August 8, 2023

	2022												2023				2024				Growth Rate			
	Q1			Q2			Q3			Q4			Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024	
U.S. Supply (billion cubic feet per day)																								
Total Marketed Production																								
Current	103.3	106.2	108.3	108.9	110.9	112.1	112.1	112.5	113.7	114.2	114.4	115.5	102.3	106.7	111.9	114.5	102.3	106.7	111.9	114.5	4.3%	4.9%	2.3%	
Previous	103.3	106.2	108.3	108.9	110.9	112.3	113.0	113.2	113.7	113.5	113.6	114.3	102.3	106.7	112.4	113.8	102.3	106.7	112.4	113.8	4.3%	5.3%	1.3%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.8%	-0.6%	0.1%	0.6%	0.7%	1.0%	0.0%	0.0%	-0.4%	0.6%	0.0%	0.0%	-0.4%	0.6%	0.0%	0.0%	0.6%	
Federal GOM Marketed Production																								
Current	2.1	2.1	2.2	2.1	2.1	1.9	2.0	2.1	2.1	2.0	1.9	1.9	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	-1.0%	-1.0%	-3.1%	
Previous	2.1	2.1	2.2	2.1	2.1	1.9	2.1	2.1	2.2	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	-1.0%	-1.0%	-1.1%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-2.6%	-5.3%	-1.1%	-2.4%	-3.5%	-5.0%	-6.3%	0.0%	0.0%	0.0%	-4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Lower 48 ex GOM Marketed Production																								
Current	100.2	103.1	105.1	105.7	107.6	109.2	109.2	109.4	110.6	111.2	111.7	112.7	99.2	103.5	108.9	111.6	99.2	103.5	108.9	111.6	4.4%	5.2%	2.5%	
Previous	100.2	103.1	105.1	105.7	107.6	109.4	110.0	110.1	110.5	110.5	110.8	111.4	99.2	103.5	109.3	110.8	99.2	103.5	109.3	110.8	4.4%	5.6%	1.4%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.7%	-0.6%	0.1%	0.7%	0.8%	1.2%	0.0%	0.0%	-0.4%	0.7%	0.0%	0.0%	-0.4%	0.7%	0.0%	0.0%	0.7%	
Pipeline Gross Imports																								
Current	8.9	7.7	7.8	8.4	8.4	7.3	7.3	7.5	8.2	6.8	7.0	7.4	7.6	8.2	7.6	7.4	7.6	8.2	7.6	7.4	7.6%	-6.9%	-3.6%	
Previous	8.9	7.7	7.8	8.4	8.4	7.1	7.1	7.5	8.2	6.8	7.0	7.4	7.6	8.2	7.5	7.4	7.6	8.2	7.5	7.4	7.6%	-8.4%	-2.1%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	3.3%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
LNG Gross Imports																								
Current	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	17.0%	-22.0%	9.8%	
Previous	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	17.0%	-18.0%	4.4%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-32.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Gross Exports																								
Current	20.0	19.3	17.9	18.5	20.4	20.5	20.5	21.2	21.8	21.5	22.3	24.2	18.2	18.9	20.6	22.5	18.2	18.9	20.6	22.5	3.8%	3.8%	8.9%	
Previous	20.0	19.3	17.9	18.5	20.3	20.7	21.6	22.2	21.7	22.3	24.2	24.2	18.2	18.9	20.7	22.6	18.2	18.9	20.7	22.6	3.8%	3.8%	9.1%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.2%	0.8%	-1.1%	-1.7%	-1.8%	-1.0%	0.0%	0.0%	0.0%	0.0%	-0.5%	-0.7%	0.0%	0.0%	-0.5%	-0.7%	0.0%	0.0%	0.0%	
U.S. Consumption (billion cubic feet per day)																								
Residential																								
Current	26.1	7.9	3.6	17.4	23.5	7.3	4.0	16.6	24.8	7.9	4.3	16.6	12.9	13.7	12.8	13.4	12.9	13.7	12.8	13.4	5.8%	-6.3%	4.5%	
Previous	26.1	7.9	3.6	17.4	23.5	7.9	4.2	16.6	24.8	7.9	4.3	16.6	12.9	13.7	13.0	13.4	12.9	13.7	13.0	13.4	5.8%	-4.9%	3.0%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-7.6%	-4.3%	-0.1%	0.0%	0.0%	-0.1%	-0.1%	0.0%	0.0%	-1.5%	0.0%	0.0%	0.0%	-1.5%	0.0%	0.0%	0.0%	0.0%	
Commercial																								
Current	15.6	6.7	4.7	11.7	14.5	6.4	5.1	11.7	14.8	6.9	5.3	11.8	9.0	9.7	9.4	9.7	9.0	9.7	9.4	9.7	6.9%	6.9%	2.8%	
Previous	15.6	6.7	4.7	11.7	14.5	6.7	5.1	11.6	15.2	6.9	5.2	11.5	9.0	9.7	9.5	9.7	9.0	9.7	9.5	9.7	6.9%	-2.1%	2.7%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-3.6%	0.5%	1.2%	-2.4%	0.1%	2.7%	1.5%	0.0%	0.0%	-0.2%	-0.1%	0.0%	0.0%	-0.2%	-0.1%	0.0%	0.0%	0.0%	
Industrial																								
Current	25.5	22.3	21.5	23.5	24.7	22.2	21.5	23.5	24.3	21.3	21.1	23.4	22.7	23.2	23.0	22.5	22.7	23.2	23.0	22.5	1.9%	1.9%	-1.8%	
Previous	25.5	22.3	21.5	23.5	24.7	22.3	21.4	23.3	23.9	20.9	20.7	22.9	22.7	23.2	22.9	22.1	22.7	23.2	22.9	22.1	1.9%	-1.0%	-3.6%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-0.2%	0.1%	0.6%	1.5%	2.0%	2.1%	2.2%	0.0%	0.0%	0.1%	1.9%	0.0%	0.0%	0.1%	1.9%	0.0%	0.0%	0.0%	
Electric Power Sector																								
Current	28.4	31.0	42.4	30.9	30.8	33.3	44.9	32.1	29.4	31.7	43.6	30.7	30.8	33.2	35.3	33.9	30.8	33.2	35.3	33.9	7.9%	6.4%	-4.1%	
Previous	28.4	31.0	42.4	30.9	30.8	33.3	43.9	31.1	29.5	31.3	43.1	29.8	30.8	33.2	34.8	33.5	30.8	33.2	34.8	33.5	7.9%	4.8%	-3.8%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	2.4%	3.4%	-0.3%	1.4%	1.2%	2.8%	0.0%	0.0%	1.5%	1.3%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	
Total Consumption																								
Current	104.9	76.2	80.8	92.6	103.1	76.0	84.6	93.3	103.2	76.6	83.5	92.1	84.0	86.6	89.7	86.8	84.0	86.6	89.7	86.8	5.4%	1.3%	-1.0%	
Previous	104.8	76.1	80.8	92.6	103.0	76.9	83.6	92.0	103.2	75.6	82.3	90.4	83.9	88.5	89.3	87.9	83.9	88.5	89.3	87.9	5.5%	0.9%	-1.6%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-1.1%	1.1%	1.5%	0.0%	1.3%	1.5%	1.9%	0.1%	0.0%	0.4%	1.1%	0.1%	0.0%	0.4%	1.1%	0.0%	0.0%	0.0%	
U.S. Working Gas in Storage (billion cubic feet)																								
Current	1.401	2.325	3.146	2.927	1.850	2.900	3.524	3.224	1.957	3.080	3.687	3.410	3.210	2.927	3.224	3.410	3.210	2.927	3.224	3.410	-8.8%	-8.8%	10.1%	
Previous	1.401	2.325	3.146	2.927	1.850	2.912	3.550	3.210	1.904	3.028	3.651	3.402	3.210	2.927	3.210	3.402	3.210	2.927	3.210	3.402	-8.8%	-8.8%	9.7%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-0.4%	-0.7%	0.5%	2.7%	1.7%	1.0%	0.2%	0.0%	0.0%	0.5%	0.2%	0.0%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	
U.S. Balancing Item (billion cubic feet per day) (Consumption - Supply)																								
Current	0.3	0.2	0.1	-0.1	0.6	-0.1	1.6	0.4	-1.5	-1.3	0.3	-0.2	-0.4	0.1	0.7	-0.7	-0.4	0.1	0.7	-0.7	-0.4	-0.4	-0.7	
Previous	0.3	0.2	0.0	-0.1	0.6	1.0	0.6	-1.5	-1.4	-1.3	0.2	-0.4	-0.6	0.1	0.2	-0.7	-0.6	0.1	0.2	-0.7	-0.6	-0.7		

Sources: Energy Information Administration, Short-Term Energy Outlook (<http://www.eia.gov/outlooks/steo/>)

STEO Current/Previous Forecast Comparisons: U.S. Coal and Carbon Dioxide Emissions

	2023												2024				Year			Growth Rate				
	2022			2023			2024			Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024	
U.S. Coal (million short tons)																								
Production																								
Current	149	146	154	148	151	147	151	134	122	109	120	113	578	597	583	464	3.3%	-2.4%	-20.4%					
Previous	149	146	154	148	151	147	148	132	121	111	123	118	578	597	578	472	3.3%	-3.1%	-18.4%					
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	1.3%	1.3%	-1.5%	-2.6%	-3.7%	0.0%	0.0%	0.8%	-1.6%	0.0%	0.0%	0.0%					
Exports																								
Current	20	23	21	21	24	24	24	26	26	27	25	27	85	86	88	105	1.0%	14.5%	6.7%					
Previous	20	23	21	21	25	25	25	25	25	26	25	27	85	86	100	103	1.0%	16.2%	3.4%					
Percent Change	0.0%	0.0%	0.0%	0.0%	-3.5%	-3.3%	1.2%	2.3%	2.0%	1.6%	1.0%	1.7%	0.0%	0.0%	-1.4%	1.7%	0.0%	0.0%	0.0%					
Imports																								
Current	1.3	1.6	2.0	1.4	1.0	1.0	1.4	1.1	0.7	0.8	1.1	0.7	5.4	6.3	4.5	3.2	17.2%	-25.2%	-28.6%					
Previous	1.3	1.6	2.0	1.4	1.0	1.1	1.5	1.1	0.6	0.8	1.1	0.8	5.4	6.3	4.7	3.3	17.2%	-25.1%	-30.7%					
Percent Change	0.0%	0.0%	0.0%	0.0%	-10.4%	-9.0%	-0.2%	3.3%	-0.7%	-3.7%	-8.0%	-8.0%	0.0%	0.0%	-5.4%	-2.6%	0.0%	0.0%	0.0%					
Electric Power Demand																								
Current	123	107	135	105	90	82	125	79	88	74	115	78	501	470	375	354	-6.3%	-20.1%	-5.6%					
Previous	123	107	135	105	90	80	119	82	88	79	118	83	501	470	370	368	-6.3%	-21.2%	-0.8%					
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	5.3%	-3.8%	-0.3%	-7.0%	-2.4%	-5.5%	0.0%	0.0%	1.3%	-3.6%	0.0%	0.0%	0.0%					
Secondary Stocks																								
Current	90	91	84	94	114	134	133	155	154	156	132	133	96	94	155	133	-2.2%	63.9%	-13.9%					
Previous	90	91	84	94	114	137	138	156	153	152	129	130	96	94	156	130	-2.2%	65.3%	-16.5%					
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-2.1%	-4.3%	-0.8%	0.1%	2.3%	2.3%	2.3%	0.0%	0.0%	-0.8%	2.3%	0.0%	0.0%	0.0%					
U.S. Carbon Dioxide Emissions																								
Petroleum																								
Current	561.6	563.8	576.3	571.4	554.6	569.8	567.3	564.7	556.0	558.8	570.6	566.4	2,235	2,273	2,256	2,252	1.7%	-0.7%	-0.2%					
Previous	561.6	563.8	576.3	571.4	554.6	578.8	571.4	577.3	564.7	570.1	582.1	580.8	2,235	2,273	2,282	2,288	1.7%	0.4%	0.7%					
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-1.6%	-0.7%	-2.2%	-1.5%	-2.0%	-2.0%	-2.5%	0.0%	0.0%	-1.1%	-2.0%	0.0%	0.0%	0.0%					
Coal																								
Current	244.1	214.7	264.3	211.6	184.3	152.9	246.8	164.8	181.0	153.9	228.7	163.2	1,003	935	749	727	-6.8%	-19.9%	-2.9%					
Previous	244.1	214.7	264.3	211.6	184.3	164.3	235.2	170.5	181.7	163.4	234.0	171.4	1,003	935	744	750	-6.8%	-20.4%	0.8%					
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-0.9%	4.9%	-3.4%	-0.4%	-5.8%	-2.3%	-4.8%	0.0%	0.0%	0.6%	-3.2%	0.0%	0.0%	0.0%					
Natural Gas																								
Current	510.4	373.5	401.1	460.7	501.8	389.7	420.2	464.2	508.2	375.8	414.8	457.9	1,655	1,746	1,776	1,757	5.5%	1.7%	-1.1%					
Previous	510.4	373.5	401.1	460.7	501.4	389.2	415.6	457.6	508.1	371.0	409.0	449.7	1,655	1,746	1,764	1,738	5.5%	1.0%	-1.5%					
Percent Change	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	1.4%	1.4%	0.0%	1.3%	1.4%	1.8%	0.0%	0.0%	0.7%	1.1%	0.0%	0.0%	0.0%					
Total Fossil Fuel																								
Current	1,316	1,152	1,242	1,244	1,241	1,112	1,234	1,194	1,245	1,098	1,214	1,188	4,892	4,953	4,781	4,735	1.2%	-3.5%	-1.0%					
Previous	1,316	1,152	1,242	1,244	1,240	1,122	1,222	1,205	1,255	1,105	1,225	1,202	4,892	4,953	4,790	4,768	1.2%	-3.3%	-0.1%					
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-0.9%	1.0%	-1.0%	-0.7%	-1.5%	-0.9%	-1.2%	0.0%	0.0%	-0.2%	-1.1%	0.0%	0.0%	0.0%					

Source: Energy Information Administration, Short-Term Energy Outlook (<http://www.eia.gov/outlooks/steo/>)

STEO Current/Previous Forecast Comparisons: U.S. Renewable Energy Consumption and Capacity
Current Forecast: September 12, 2023; Previous Forecast: August 8, 2023

	2022				2023				2024				Year				Growth Rate			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021	2022	2023	2024	2021-2022	2022-2023	2023-2024	
	U.S. Renewable Energy Consumption, All Sectors (quadrillion btu)																			
Wind Power																				
Current	1,052	1,070	0,713	1,007	1,109	0,905	0,771	1,081	1,193	0,965	0,791	1,125	3,342	3,842	3,866	4,074	15.0%	0.6%	5.4%	
Previous	1,052	1,070	0,713	1,007	1,109	0,934	0,743	1,074	1,182	0,978	0,769	1,120	3,342	3,842	3,860	4,049	15.0%	0.4%	4.9%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-3.1%	3.8%	0.7%	0.9%	-1.3%	3.0%	0.4%	0.0%	0.0%	0.2%	0.6%				
Wood Biomass																				
Current	0,494	0,496	0,505	0,489	0,486	0,471	0,503	0,513	0,513	0,505	0,525	0,520	1,989	1,984	1,972	2,063	-0.3%	-0.6%	4.6%	
Previous	0,494	0,496	0,505	0,489	0,486	0,471	0,516	0,517	0,514	0,504	0,526	0,520	1,989	1,984	1,990	2,063	-0.3%	0.3%	3.7%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-2.7%	-0.9%	-0.1%	0.2%	-0.1%	0.0%	0.0%	0.0%	-0.9%	0.0%				
Solar Power																				
Current	0,377	0,568	0,559	0,366	0,405	0,655	0,681	0,466	0,541	0,869	0,905	0,595	1,520	1,870	2,207	2,909	23.0%	18.0%	31.8%	
Previous	0,377	0,568	0,559	0,366	0,405	0,664	0,688	0,467	0,537	0,867	0,893	0,594	1,520	1,870	2,224	2,891	23.0%	18.9%	30.0%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	-1.4%	-1.0%	0.0%	0.8%	0.1%	1.3%	0.2%	0.0%	0.0%	-0.8%	0.6%				
Ethanol																				
Current	0,273	0,293	0,293	0,295	0,279	0,296	0,304	0,289	0,274	0,290	0,299	0,286	1,147	1,153	1,167	1,149	0.5%	1.2%	-1.5%	
Previous	0,271	0,293	0,292	0,294	0,279	0,297	0,305	0,292	0,281	0,298	0,305	0,294	1,147	1,149	1,174	1,178	0.2%	2.1%	0.4%	
Percent Change	0.7%	-0.1%	0.3%	0.3%	-0.2%	-0.5%	-0.3%	-1.2%	-2.3%	-2.7%	-1.9%	-2.7%	0.0%	0.3%	-0.6%	-2.4%				
Biodiesel, Renewable Diesel, and Other																				
Current	0,094	0,117	0,116	0,125	0,140	0,173	0,165	0,168	0,165	0,178	0,180	0,181	0,386	0,451	0,646	0,704	16.8%	43.1%	9.0%	
Previous	0,094	0,117	0,116	0,125	0,140	0,164	0,154	0,163	0,160	0,172	0,176	0,184	0,386	0,451	0,622	0,692	16.8%	37.7%	11.3%	
Percent Change	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	6.9%	3.1%	3.6%	3.2%	2.2%	-1.7%	0.0%	0.0%	3.9%	1.7%				
U.S. Renewable Electric Power Sector Generation Capacity (MW)																				
Wind Power																				
Current	134,717	137,628	137,625	141,022	142,801	144,239	145,941	149,162	149,613	152,365	152,365	155,193	132,629	141,022	149,162	155,193	6.3%	5.8%	4.0%	
Previous	134,848	137,370	137,435	140,812	142,498	144,783	145,987	148,946	149,397	152,047	152,047	154,949	132,629	140,812	148,946	154,949	6.2%	5.8%	4.0%	
Percent Change	-0.1%	0.2%	0.1%	0.1%	0.2%	-0.4%	0.0%	0.1%	0.1%	0.2%	0.2%	0.2%	0.0%	0.1%	0.1%	0.2%				
Wood Biomass																				
Current	2,444	2,426	2,426	2,413	2,413	2,413	2,413	2,413	2,413	2,413	2,413	2,413	2,435	2,413	2,413	2,413	-0.9%	0.0%	0.0%	
Previous	2,466	2,449	2,449	2,449	2,426	2,413	2,413	2,413	2,413	2,413	2,413	2,413	2,435	2,449	2,413	2,413	0.6%	-1.4%	0.0%	
Percent Change	-0.9%	-0.9%	-0.9%	-1.4%	-0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-1.4%	0.0%	0.0%				
Solar Power																				
Current	63,550	65,874	66,045	72,217	74,591	78,171	85,379	98,121	105,353	112,667	115,538	130,956	61,009	72,217	98,121	130,956	18.4%	35.9%	33.5%	
Previous	63,355	65,696	67,753	71,521	74,576	81,892	87,401	98,910	105,891	112,984	115,296	129,812	61,009	71,521	98,910	129,812	17.2%	38.3%	31.2%	
Percent Change	0.3%	0.4%	0.4%	1.0%	0.0%	-4.5%	-2.3%	-0.8%	-0.5%	-0.3%	0.2%	0.9%	0.0%	1.0%	-0.8%	0.9%				

Source: Energy Information Administration, Short-Term Energy Outlook (<http://www.eia.gov/outlooks/steor/>)

Highlights:

AES Indiana has approximately 700+ personnel working on restoration efforts this number includes line crews, tree crews, underground crews, and in office personnel. This has been a unique storm for AES Indiana, as some have referred to it as a derecho, and has extended restoration efforts across the entire AES Indiana service territory.

Indiana Utility Regulatory Commission Outage Reporting Form
> <i>Final Supplemental Report</i>

+Contact Information
> Name of Utility:
AES Indiana
> Utility Contact Representative: <i>Chad Rogers</i>
> Contact Phone: <i>Cell: 317-340-7684, Office: 317-261-8983</i>

+Outage Information
> Estimated Total Number of Customers affected: <i>81,640</i>
> Number of Customers still out as of this report: <i>0</i>
> Estimated number of Customer's power restored as of this report: <i>81,640</i>
Note: This event is a Level 3 storm.
> Interruption(s) Start Date/Time: <i>06/29/2023 3:45 pm</i>
> Duration of Interruption(s): <i>5 days 1 hour 15 mins</i>
> Location of Interruption(s); (County, City, Address or other description):
Outages across the service territory.
> Cause of Interruption(s): <i>High Winds & Storms</i>
> Estimated Service Restoration Time: <i>Early afternoon July 4, 2023</i>
> Reported By: <i>Hannah Fikes</i>
> Date/Time: <i>July 4, 2023 1700 Hours</i>

Cause No. 45911

ORIGINAL

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT)
 COMPANY D/B/A AES INDIANA ("AES INDIANA") FOR)
 AUTHORITY TO INCREASE RATES AND CHARGES FOR)
 ELECTRIC UTILITY SERVICE, AND FOR APPROVAL)
 OF RELATED RELIEF, INCLUDING (1) REVISED)
 DEPRECIATION RATES, (2) ACCOUNTING RELIEF,)
 INCLUDING DEFERRALS AND AMORTIZATIONS, (3))
 INCLUSION OF CAPITAL INVESTMENTS, (4) RATE)
 ADJUSTMENT MECHANISM PROPOSALS, INCLUDING)
 NEW ECONOMIC DEVELOPMENT RIDER, (5) REMOTE)
 DISCONNECT/RECONNECT PROCESS, AND (6) NEW)
 SCHEDULES OF RATES, RULES AND REGULATIONS)
 FOR SERVICE.)

DEPOSITION OF MICHAEL HOLTSCLAW

The deposition upon oral examination of
 MICHAEL HOLTSCLAW, a witness produced and
 sworn before Kathleen Andrews, Notary Public in
 and for the County of Hamilton, State of Indiana,
 taken on behalf of the Indiana Office of Utility
 Consumer Counselor, 115 West Washington Street,
 Suite 1500 South, Indianapolis, Marion County,
 Indiana, at 10:00 a.m. on September 6, 2023.

CIRCLE CITY REPORTING
 135 North Pennsylvania
 Suite 1720
 Indianapolis, IN 46204
 (317) 635-7857

APPEARANCES

FOR THE PETITIONER:

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FOR THE INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR:

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ALSO PRESENT:

Kevin Greene	AES Regulatory Affairs Analyst
Roopali Sanka	OUCS Utility Analyst
April Pakonish	OUCS Assistant Director
Anthony Swinger	OUCS Chief of Technical Operations
Brittany Baker	OUCS Electric Division

EXAMINATION

	PAGE
EXAMINATION BY MR. HELMEN	4

INDEX OF EXHIBITS

NO.	DESCRIPTION	PAGE
EXHIBIT 1	VERIFIED DIRECT TESTIMONY OF MICHAEL L. HOLTSCLAW	7
EXHIBIT 2	AES OBJECTIONS AND RESPONSES TO THE OUCC'S TENTH SET OF DATA REQUESTS	8

1 MICHAEL L. HOLTSCRAW, the witness herein,
2 having been first duly sworn to tell the truth,
3 the whole truth, and nothing but the truth,
4 testified as follows:

5 EXAMINATION,

6 QUESTIONS BY MR. HELMEN:

7 Q. Would you please state your name, and spell your
8 last name for the record.

9 A. Sure. Michael Holtsclaw. H-O-L-T-S-C-L-A-W.

10 Q. Michael, as you know, I'm Randy Helmen, and we have
11 met before, have we not?

12 A. Yes, we have.

13 Q. I want to go through a few ground rules. And I'm
14 sure your attorney has told you the same thing, but
15 the first thing I want to mention, because we don't
16 do many depositions here in the regulatory field,
17 and I just want you to understand that this is what
18 we call a discovery deposition. It's not a trial
19 deposition.

20 What that means to me is I am hoping it is not
21 at all contentious. No gotcha questions. I'm
22 looking for a conversation.

23 A. Okay.

24 Q. I will use, I'll try to always say AES Indiana, but
25 I might say AESI. I might even say IPL because I'm

1 old, but I'm talking about the same entity. Do you
2 understand that?

3 A. Yes.

4 Q. If you have any questions at all, or you want me to
5 rephrase something, I'd be happy to do so.

6 A. Okay.

7 Q. If you answer my question, though, I'm going to
8 assume you are answering it to the best of your
9 ability.

10 We can take a break. I don't anticipate this
11 lasting too long, but any time you want to take a
12 break to talk to your lawyer, go to the bathroom,
13 that's perfectly fine.

14 A. Okay. Sounds fine.

15 Q. Okay, good. For your testimony, your job title is
16 Director of Transmission Field Operations?

17 A. It was at the time we filed. It has changed.

18 Q. Okay. What are you?

19 A. My title now is Director Power Delivery Operations.

20 Q. Okay. Now, you've held that position before in the
21 past, have you not?

22 A. Similar role, yes.

23 Q. All right. Can you explain the difference between
24 those two roles?

25 A. Yeah. The role I'm in now, I'm focusing more on

1 the implementation of our new advanced distribution
2 management system. I also still have
3 responsibility for our emergency plans and our
4 emergency response. That hasn't changed. And
5 taking on more of a role of, I guess I would call
6 it a consultant, where I'm kind of trying to
7 educate and impart some of my knowledge onto the
8 younger staff, in anticipation of a retirement in
9 another couple of years.

10 So a little less responsibility on day-to-day
11 operations; although I still do, I'm still involved
12 in day-to-day operations. I just don't have full
13 responsibility for day-to-day operations, but still
14 part of the leadership team and power delivery and
15 involved with the things that are going on.

16 Q. Your testimony was filed on June 28, and at that
17 time you were the Director of Transmission Field
18 Operations, I assume?

19 A. Yes, that's correct.

20 Q. All right. And then, of course, the storm came on
21 June 29. What was your position then? Was it the
22 same? Was it Director of Transmission Field
23 Operations?

24 A. Actually, it would have been, the change occurred
25 on June 23. That's when my change, that title

1 change occurred.

2 Q. What is your involvement in the company's
3 transmission and distribution systems? What do you
4 do?

5 A. Overseeing, just kind of monitoring day-to-day
6 operations, being involved if we're taking
7 equipment out of service, lines out of service. If
8 there's going to be any issues, I may get involved
9 in those discussions to figure out how we want to
10 do things, or if we can take that outage at the
11 same time we have other work going on. It's really
12 overseeing the operation of the system on a
13 day-to-day basis.

14 Q. Do you work remotely at all?

15 A. Occasionally, but not very often. I'm in the
16 office five days a week.

17 Q. Who currently holds the position of Director of
18 Transmission Field Operations, if anybody?

19 A. That would be Mark Thompson.

20 Q. Is that since June 23?

21 A. Yes.

22 (Exhibit 1 introduced into the record.)

23 Q. I've placed before you what's been marked as
24 Holtsclaw Deposition Exhibit 1, which is a copy of
25 your direct testimony.

1 (Exhibit 2 introduced into the record.)

2 Q. Holtsclaw Deposition 2 is AESI's response to OUCC's
3 data request number ten.

4 A. Okay.

5 Q. If you want to glance through that, did you
6 participate in answering some of those questions?

7 A. Let me look.

8 MR. WENDT: Exhibit 2?

9 MR. HELMEN: Yes, yes.

10 A. Yes. I participated in answering questions five
11 through eleven.

12 Q. But I assume you're familiar with the other
13 questions and answers? I assume people from your
14 department answered those?

15 A. The first few questions, I believe, most of those
16 were on vegetation.

17 Q. Right.

18 A. Those were answered by folks out of our vegetation
19 management group. I didn't have any involvement
20 with those answers.

21 Q. Okay. You are familiar with your vegetation
22 management plan, though?

23 A. At a high level.

24 Q. Okay. Now, what prompted the change in job
25 descriptions on June 23?

1 A. We had had some other leadership changes that
2 occurred earlier in the year, and they were, the
3 upper management team, leadership team was just
4 aligning the lower, lower levels of the
5 organization with some other changes that had taken
6 place earlier in the year.

7 And, like I say, some of it, too, is also
8 starting to set things up for my potential
9 retirement in the next couple of years, be able to
10 impart some knowledge onto folks.

11 Q. I kind of need you to impart some knowledge on me
12 today.

13 A. I'll do my best.

14 Q. All right. In your testimony you state that the
15 condition of your transmission distribution system
16 was good. It's on page 6, line 8.

17 A. Okay. Yeah, Question 15, yeah.

18 Q. Is there any reason you didn't say very good or
19 excellent?

20 A. No, not really. It's just kind of trying to convey
21 an objective observation of the condition of the
22 system.

23 Q. Okay. Was there ever a time where you would
24 describe your system as very good?

25 MR. WENDT: Objection. Vague. Ambiguous.

1 Q. Obviously, when your attorney objects, you don't
2 say anything until he states his objection.

3 A. Right.

4 Q. And then he will instruct or he will advise you
5 whether you want to answer the question or not. I
6 strongly encourage you to take his advice on that.

7 MR. WENDT: Unless I tell you not to, please
8 answer.

9 A. I guess it's really hard to say. I mean, I believe
10 we've got a very good system. It's in good shape.
11 And to describe it, what adjective you put in front
12 of it, it's hard to say.

13 Q. That was the adjective you chose, so I was just
14 asking about it.

15 A. Yeah.

16 Q. Do you still consider the system to be, to be good
17 after the June 29 storm restoration?

18 A. Yes, I do.

19 Q. How is AES's vegetation management plan on a large
20 scale, you understand, developed?

21 MR. WENDT: Lacks foundation.

22 Q. Are you familiar with your -- you can go ahead and
23 answer. I'm sorry.

24 A. I mean, I'm familiar with what our current, I
25 guess, policies or procedures are, how we're

1 trimming. How that has been developed I've not
2 been involved, directly involved in those
3 discussions, so it's really hard for me to answer
4 that.

5 Q. Was there a time where you were more heavily
6 involved in your vegetation management planning?

7 A. No. That's been one part of the area of the
8 company that I've never had really any
9 responsibility for or involvement with.

10 Q. So you would not be familiar with the company's
11 proposal to increase the cost of tree trimming per
12 mile in this case compared to what it was?

13 A. No, other than I've heard it mentioned in
14 discussions we've had as our pre-filed testimony
15 was being prepared, so I've heard it mentioned.
16 The details of it, I'm not familiar with.

17 Q. And I could be incorrect, but tell me if I am.
18 Well, first, let me ask you this: What's the
19 difference, if you know, between a box trim and
20 overhead cleaning?

21 A. A box trim is where we were trimming just some
22 distance either side of conductors. So if you
23 imagine a line going down through vegetation,
24 you're basically trimming a tunnel where the
25 conductors go through. So that's considered in

1 general a box trim.

2 The trim that they're doing now, where
3 possible, is they are trying to trim on up to the
4 sky. So with box trim you still have tree limbs
5 that are overhanging the conductor. Think of that
6 box.

7 What you're doing is trying to trim that
8 vertical piece of that box so it goes on up to the
9 sky so you don't have limbs overhanging the
10 conductor. If the limb breaks or falls, it's not
11 going to fall onto the lines. That's the main
12 difference.

13 Q. Thank you. That helps.

14 Were you familiar with the commission
15 investigation into tree trimming practices of
16 Indiana utilities?

17 A. Aware of it. It's been several years ago now, but
18 I couldn't even tell you what year, so yeah. It
19 was early 2000s, as I recall.

20 Q. More recent than that, but I don't know. Do you
21 know whether the company's tree trimming or
22 vegetation management plan was changed as a result
23 of that investigation?

24 A. As I understand it, it was because of the rules
25 changes that the commission issued as a result of

1 that proceeding.

2 Q. You don't know any details of how it changed or
3 not?

4 A. Just I know there were some changes that occurred
5 as far as notification requirements for the
6 utilities. It was more of a formalized process of
7 multiple notifications. Also, I think there were
8 some changes as far as needing to get permission
9 from customers to be able to trim, trim trees.

10 Q. Okay. That's a good memory.

11 Let's turn our attention to your inventory
12 area. Is this something you're familiar with?

13 A. Yes.

14 Q. I believe you testified that your proposal is to
15 have five months' worth of inventory, at least with
16 respect to lines and poles; is that accurate?

17 A. That's correct.

18 Q. What was it before applying, in other words, prior
19 to this rate case what was it, what level of
20 inventory did you want to keep?

21 A. For rate making purposes we were using a 13-month
22 average. And in this case we have proposed using
23 the five month, as you mentioned.

24 Q. And when did that change? Or has it not changed?
25 You are asking for it to be changed in this case.

1 A. We are asking for it to be. We have proposed in
2 this case we use a five-month average to calculate
3 inventory levels for rate making purposes.

4 Q. What was the purpose of that change, proposed
5 change?

6 MR. WENDT: Lacks foundation.

7 A. Trying to take into account current, current
8 environment for being able to get material. We
9 have seen continuously lead times on material have
10 just gone three, four times what they would
11 normally be. So that's resulting in us carrying
12 higher inventory levels than we would have
13 necessarily carried in the past because it's taking
14 so long to get things.

15 We anticipate, we don't see supply chain
16 issues changing in the near term. So the thought
17 is that for at least the next period that these
18 rates would be in effect, the situation we're in
19 right now with inventory and long lead times will
20 continue; that the current five-month average of
21 inventory levels is going to be more representative
22 of what we're going to see for the next several
23 years.

24 Q. Okay. You testified about the significant increase
25 in lead time to get materials. Presumably, the way

1 I read your testimony, it was presumably due to the
2 pandemic and supply chain problems. Is that fair?

3 MR. WENDT: Lacks foundation.

4 A. It all occurred with those events.

5 Q. Has it improved? I'm sorry. Go ahead and finish
6 your answer.

7 A. So, you know, the pandemic hit, and then supply
8 chain issues began. I'll let the economists decide
9 what the cause and effect was there. But all we
10 know is right now we continue to see extremely long
11 lead time on material, and it is not improving.

12 Q. Does the company categorize inventory differently
13 for storm response inventory versus nonstorm
14 response inventory?

15 A. No.

16 Q. The same?

17 A. It's just inventory.

18 Q. Is there a difference in how it is procured or how
19 you receive it? For example, normally inventory, I
20 assume you make a determination of what you need,
21 probably have to do some paperwork, requisition
22 forms, something like that. Is that true?

23 A. Yeah. When our engineers are designing a job, they
24 will put together a bill of material that states
25 here's what I'm going to need to do this project,

1 and here is when I'm going to need it. And then
2 the sourcing group is responsible for, is
3 responsible for managing the inventory levels,
4 takes that upcoming known work that's coming up
5 into account to make sure we've got inventory for
6 it.

7 They also look at, because there's always the
8 unknowns that occur, last minute projects, storms,
9 whatever, they do some analysis, figure out what's
10 the normal inventory usage for this particular
11 widget. How many of them do we use per month on
12 average. They factor all that and make a
13 determination of what they should order and what
14 the delivery point should be for that, again trying
15 to manage inventory to a reasonable level, but also
16 trying to make sure that we've got what we need
17 when there's a new McDonald's or new whatever going
18 in, we've got what we need to be able to provide
19 service to the customer when they need it.

20 Q. Is there any expedited process when you're dealing
21 with a storm that just blows in, and you need to
22 access inventory perhaps more quickly than usual?

23 A. It depends. It depends on what item you're needing
24 and, you know, whether one of the supply houses
25 might have it in a warehouse somewhere out of state

1 or somewhere else, or maybe the supplier of that
2 part may have some excess inventory that they have.
3 Or we'll also try to reach out to other utilities
4 that have used similar stuff to see if we can
5 borrow something from them.

6 So there's numerous avenues that we'll pursue
7 during a storm restoration in particular, if we
8 happen to run low on a particular item, to see what
9 we can get.

10 Q. Did the, did any lack of inventory or lack of
11 access to your inventory play any role in your
12 response time to, let's say, the June 29 storm?

13 A. No, because one of the things we check on each of
14 the storm update calls that we have is we check, we
15 ask the material management people are there any
16 material items that we're running low on or any
17 issues. And they never reported anything, and we
18 didn't hear anything from the crews. They were
19 able to get everything they needed to put stuff
20 back up.

21 Q. What is your role now, in your current position, in
22 procuring or accessing inventory needed during a
23 storm?

24 A. Directly none, other than as one of the incident
25 commanders we're monitoring how the storm

1 restoration is going and checking with each of the
2 groups to see how they're going, do they have any
3 issues that the incident command team needs to get
4 involved in to help resolve.

5 But it's just more monitoring, checking, just
6 to make sure everything is going as it should be
7 and stepping in if a problem does start developing,
8 try to resolve it.

9 Q. When you say groups, what do you mean by groups?

10 A. Under the Emergency Response Plan there are groups
11 that handle logistics. There are people that are
12 handling the field resources. There's people that
13 are handling the financial side of things. There's
14 people that are handling communications both with
15 the commission, other stakeholders, particularly
16 local government and that. Groups of people,
17 there's a group that handles storm assessment that
18 have people out in the field looking -- I call them
19 my eyes -- looking to see what we've got, what the
20 damage looks like.

21 Our Emergency Response Plan is based off the
22 incident command system that the fire service uses
23 for operations, logistics, communications, those
24 sorts of things. So when we implement the plan,
25 there are people that are designated, they have

1 that responsibility for their piece of the plan.

2 And the incident command team that I'm a part of is
3 making sure everybody is doing what they're
4 supposed to be doing.

5 Q. Okay. Can you describe for me how that all fits in
6 together? And, again, we can just use the June 29
7 response, the storm and the response. For example,
8 what happens first? You realize that you have a
9 significant storm going on. What do you do?

10 A. We formally declare a storm event.

11 Q. Who does that?

12 A. One of the incident commanders normally will.
13 There's four of us. We'll declare, June 29 I think
14 it was pretty obvious to everybody we had a, all
15 you had to do is look out the window and saw we had
16 a major storm that rolled through Marion County.

17 Q. Sometimes that's all it takes, to look out the
18 window.

19 A. Sometimes, as long as you've got a window to look
20 out. But we go into what I refer to as a storm
21 mode. We activated our command center in one of
22 the conference rooms there at Morris Street
23 operating center is where the incident command team
24 met.

25 Q. That includes you?

1 A. That included me.

2 Q. Let me make sure I have the group here. It's
3 Roderick Conwell, David Baldwin, Barry Feldman and
4 you?

5 A. Yeah, we are the four incident commanders.

6 Q. So the day of the storm, when things are starting
7 to look serious, you are out at Morris Street?

8 A. Yes.

9 Q. And what's out there? What are you doing? What
10 are you looking at? What are you tracking?

11 A. Well, Morris Street, I mean, that's where our two
12 control centers are, the distribution operations
13 control center and the transmission operations
14 control center. They are about a hundred feet
15 apart down the hallway.

16 On June 29, as that storm was hitting, I was
17 going back and forth between the two control rooms,
18 just kind of monitoring what was going on on the
19 system, what we had out, how many circuits had
20 locked out.

21 The transmission side similarly, checking to
22 see if we had lost any transmission lines, making
23 sure we didn't have any substations that had lost
24 power, asking the operators, you know, how the
25 computer systems were doing, both on the

1 transmission side and the distribution side. Were
2 they keeping up. Were they getting the information
3 they needed.

4 We had a lot of information coming in very
5 rapidly because that storm moved through pretty
6 fast, so there was a lot of data coming in. Making
7 sure the systems were processing it. Just dealing
8 with situations that were coming up and making sure
9 the two offices were staying coordinated with what
10 was going on.

11 Q. The two control centers?

12 A. Yes.

13 Q. Did you lose any transmission lines?

14 A. We lost one. We lost a 345 transmission line
15 between Indianapolis and Petersburg. The loss of
16 that line did not result in any outages or any
17 issues, but we did have a transmission line out.
18 We didn't lose any other lines. Didn't lose any
19 substations.

20 Q. Did you lose distribution lines?

21 A. We did.

22 Q. Do you know how many?

23 A. We had 27 primary feeders that locked out at the
24 substation, so the entire circuit was out. We had
25 another 27 at the midpoint recloser on those

1 circuits locked out, and had the back half of those
2 circuits out.

3 So the other thing I'd point out there, those
4 27 midpoint point reclosers that locked out, had
5 they not been there, there would have been an
6 additional 27 full service. We would have been 54
7 circuits locked out without them, so.

8 Q. Do you recall what the weather forecast was for
9 that day?

10 A. We were under a marginal risk for severe weather
11 that day. The Storm Prediction Center in Norman,
12 Oklahoma, had had, as early as Tuesday was showing
13 a good part of the Midwest to be under a marginal
14 risk for severe weather on Thursday.

15 On Tuesday that forecast stayed the same.
16 They did add an area of slight risk, which was two
17 on a scale of five. Marginal is one on a scale of
18 five.

19 Q. Are you talking about the Tuesday before the storm?

20 A. On the Tuesday before the storm, yeah. So that
21 would have been, what, the 27th, yeah. Because
22 they put out, the Storm Prediction Center puts out
23 what they call a three-day convective forecast. So
24 three days out they circulate a detail what they
25 think might happen.

1 So on Tuesday, the day three convection
2 forecast showed, like I say, a good part of the
3 Midwest -- Illinois, Indiana, into Ohio, down into
4 Kentucky, Tennessee -- being under a marginal risk
5 for severe weather. So, again, that's a one on a
6 scale of five.

7 So it means you may have thunderstorms. There
8 could be an embedded severe thunderstorm in that.
9 So that put us on notice that we need to pay
10 attention to the forecast.

11 On Wednesday they still had that same area,
12 but added an area of slight risk. At that point it
13 was more up through northern Illinois, kind of in
14 Wisconsin, up in there, maybe a little bit of
15 northern western state of Indiana. Indianapolis
16 was not in it.

17 On Thursday morning they had updated that
18 forecast. They had moved the slight risk area down
19 to the south and covered, caught Terre Haute. And
20 then they had also added an enhanced risk area that
21 covered a portion of southern Illinois.

22 At that point, at that time we had a storm
23 system that was sitting kind of over the Oklahoma
24 area and storms were kind of rotating around it.
25 So everything, what they were forecasting was the

1 storms would kind of rotate around. At that point
2 they were showing everything sliding to the
3 southwest, the heavier storm. What they were
4 anticipating Thursday morning was that the storms
5 would kind of rotate around this low pressure
6 system and were probably going to rotate to the
7 southwest of Indiana. And that was their forecast
8 up through early Thursday afternoon.

9 Q. Are you telling me that -- obviously, the weather
10 forecast was wrong or changed. Did that in any way
11 affect your preparation for a major storm event?

12 A. No. Thursday morning we were watching. We knew
13 what the forecast from the Storm Prediction Center
14 was for that day. Local TV stations were saying we
15 have a chance for thunderstorms in the afternoon,
16 and that there, because we were under a marginal
17 risk, there was a chance for an isolated severe
18 thunderstorm. So we knew there was the potential
19 for weather on Thursday.

20 Thursday morning myself and others were
21 watching the weather radar, the long range radar
22 back to the west to see what might be developing
23 and noticed some weather beginning to develop in
24 Iowa late in the morning on Thursday. And it, we
25 kept watching the scans. And around 11:00 it was

1 holding together, seemed to be growing, getting
2 bigger, which indicated to us there was a lot of
3 energy in it. Again, at that time the storms were
4 still kind of on this curve rotation.

5 We went ahead and made the decision at that
6 point, just kind of extrapolating if that weather
7 held together, and it reached Indianapolis, when
8 would it get here. And it was going to put it in
9 here right around quitting time, so crews would be
10 going home, and we wouldn't have the, normally we
11 don't have that many resources that we hold that
12 work the evenings.

13 So we made the decision at 11:00 to go ahead
14 and notify our AES Indiana crews that we would be
15 holding them over. They would not be going home at
16 four o'clock. And we notified, we decided we
17 wanted to have 30 line crews going into Thursday
18 evening in anticipation of weather potentially
19 coming in, so we would have resources on hand,
20 ready to respond.

21 So we notified the AES Indiana crews and about
22 19 or so of our local contractor crews that are on
23 property that we would hold them over into Thursday
24 evening, because those guys would be able to work
25 at least until 11:00 before they would hit their 16

1 hours for the day.

2 Q. You say that's 19?

3 A. I think it was around 19 contractor crews that we
4 ended up holding. That gave us right at 30 crews
5 that were going to be here.

6 Q. Is it 19 in addition to the 30 line crews, or is
7 that total?

8 A. No. That 19 is in that, yeah. I think we had,
9 yeah, I think actually we may have wound up with a
10 little bit more than that, but that was, I know
11 that was our target was to have 30, because
12 normally in the evenings, late shift, we only have
13 two. And we knew if we had weather, that was not
14 going to be adequate.

15 Q. How many crews do you have, including both
16 internal, as well as, you know, your contract
17 labor?

18 A. In total, when the storm, on Thursday evening when
19 the storm hit, we had 84 line crews on the property
20 because that includes the AES crews, the contract
21 crews that are working just regular work, and then
22 the contract crews that are on property working
23 TDSIC.

24 THE REPORTER: Working on?

25 A. TDSIC. It stands for Transmission, Distribution,

1 Storage System Improvements Charge. I think that's
2 the full name of it.

3 So we knew, even Thursday morning we knew we
4 had 84 line crews at our disposal, if something did
5 happen. Again, the command team, we were, David
6 Baldwin's office is right next to mine, so we were
7 kind of going back and forth talking, decided that
8 30 would be a good number to have holding into the
9 evening until we, to see what would happen.

10 I mean, we do this a lot. Nine times out of
11 ten nothing ever happens, and the guys get two
12 hours show-up time for overtime, and we send them
13 home. But we couldn't take a chance. We wanted to
14 make sure we had resources ready to go should
15 something happen.

16 Q. Did you, in fact, need all those resources the 29th
17 and the 30th?

18 MR. WENDT: The 30 crews or the 84 crews?

19 A. Well, the 30 crews we definitely needed Thursday
20 night after the storm hit. They were utilized.
21 And then Friday morning we deployed all 84 line
22 crews. We notified the, late in the afternoon on
23 Thursday we notified all the TDSIC contractors that
24 they would need to report on Friday for storm
25 response because they work four tens, four days,

1 ten-hour days. So half of them work Monday through
2 Thursday. Half of them work Tuesday through
3 Friday. So it means on Friday, Friday and Monday
4 half of them are gone because most of them live out
5 of state, so.

6 So we wanted to make sure we had maximum
7 resources, so they were notified Thursday
8 afternoon -- the crews that would normally be off
9 on Friday, heading home because it was a holiday
10 weekend, and all these guys live out of state, they
11 would be heading home -- that we wanted them to
12 stay, and that they would be working, anticipating
13 they would be working storm response.

14 And at that point we still hadn't been hit.
15 This was one, two o'clock Thursday afternoon. But
16 we went in and pulled that trigger and told them
17 you're staying. That means we're picking up their
18 hotel rooms for Thursday night now, but we want you
19 here Friday morning ready to go. So we went ahead
20 and made the decision to be, we were prepared to
21 deploy all 84 line crews Friday morning.

22 Q. Now, as you mentioned, it was a holiday weekend,
23 beginning of the holiday week, really, with the 4th
24 of July. Did vacation plans cause you any problems
25 in terms of having the personnel needed to respond

1 to this storm?

2 A. Not really. We were able, we had some, you know,
3 there were some people on vacation. But we were
4 able to work around those, backfill positions with
5 other people.

6 MR. HELMEN: Can we go off the record?

7 (A recess was taken.)

8 MR. HELMEN: Let's go back on the record.

9 Q. Mike, I want to explore a little bit more, just so
10 I understand better, about the crews that you had,
11 the difference between the 30 crews and the 84
12 crews. Can you explain that?

13 A. Sure. So, again, we've got what I consider three
14 sets of crews on the property. There's the AES
15 Indiana line crews, the overhead and underground
16 linemen. There are -- that's around 21 crews, I
17 believe, if memory serves me correct.

18 There are contractor crews that help
19 supplement just our regular day-to-day work,
20 maintenance work, and help supplement the AES
21 Indiana crews that are working capital projects,
22 that sort of thing.

23 Q. And they are independent contractors?

24 A. These are independent contractors. These are line
25 contractors that we've hired through, there's four

1 or five different companies.

2 Q. And is that pretty much their full-time job,
3 working for you?

4 MR. WENDT: Lacks foundation.

5 Q. Do they work for other utilities?

6 A. No. These are all national contractors. They've
7 got crews all across the country.

8 Q. But the ones that you have --

9 A. They are dedicated to us, so they are on our
10 property every day.

11 Q. How many crews?

12 A. I want to say that's roughly another 20.

13 Q. Okay. That brings us up to 41.

14 A. That's 40. And then there's another -- the number
15 fluctuates a little bit right now. On that, on
16 June 29 we had 43 line crews, contractor line crews
17 that were dedicated to working on TDSIC projects.
18 So that got us to the 83, 84 line crews that were
19 on property on June 29.

20 Q. You made the decision, as I recall you testified,
21 to keep 30 crews available that evening?

22 A. Yes, for Thursday evening.

23 Q. Would that have changed, if the risk assessment had
24 been higher than I think the two out of five you
25 said it was?

1 A. Actually, no.

2 Q. Okay. Any particular reason?

3 A. A storm hitting late in the day like that, the
4 crews can only work 16 hours, really. We don't
5 like them to go past 16. So that takes you to
6 around 11:00.

7 In an emergency, which this was, we might work
8 them longer into the night. But if you do that,
9 you have to be very careful because then you don't
10 have any resources for the next day.

11 Q. Right.

12 A. So we try to strike a balance between having enough
13 crews on hand to address the immediate situation,
14 and then also make sure that we've got ourselves
15 set up so at daylight the next morning we can
16 maximize the amount of resources available to us so
17 that we're working during daylight hours.

18 Q. Do you ever have workers that work overnight from
19 midnight to eight a.m.?

20 A. Yes. Yes, we do.

21 Q. Any on this particular occasion work overnight?

22 A. Yes, we did.

23 Q. How many crews worked overnight?

24 A. We worked 15 of the AES Indiana crews through the
25 night. So they worked, those guys wound up working

1 nearly 24 hours before they got released. And they
2 stayed on that rotation, then, throughout the
3 storm. Those 15 crews became our night crews.

4 Q. So you had 15, so then the next day you had 84 less
5 15?

6 A. Yeah.

7 Q. When did the company realize that this was a
8 significant weather event? That's my word,
9 significant.

10 A. By 4:30 Thursday afternoon. I mean, as soon as the
11 storm cleared the system, I mean, yeah, we knew we
12 had a major, we'd had a major weather event.

13 Q. So as you were working on restoration over the next
14 few days after June 29, how were your crews
15 dispatched? I'm talking about your AES Indiana
16 crews and your contract labor.

17 A. Can you clarify what you mean by how were they
18 dispatched?

19 Q. Did you have a set number that were going to work
20 during the day? I assume you had people working
21 around the clock.

22 A. Yes.

23 Q. Okay.

24 A. Okay. Yeah, from that standpoint we had, we had
25 the 15 AES crews that worked through the night,

1 Thursday night into Friday. We decided we would
2 leave them, those 15 crews, on that night rotation.
3 So they were working a 16-hour shift. So they
4 would come in, on Friday they came back in around
5 4:00 on Friday afternoon, and then worked 16 hours.
6 I think that takes them through to about 8:00 the
7 next morning, or roughly, whatever that 16 works
8 out to be.

9 So all the crews, once we go into storm
10 restoration mode, all the crews are working 16-hour
11 shifts. So the crews that come in that are working
12 days, they are going to come in 6:00 to 7:00 in the
13 morning, and then they'll work 16 hours. That
14 takes them up to about 11:00 in the evening then.
15 So that way the bulk of their work occurs during
16 daylight hours. We try to maximize our resources
17 during daylight because they get more work done.

18 Q. Sure. And so a crew was on for 16. How long were
19 they off?

20 A. Off for eight.

21 Q. What percentage of AES Indiana customers were
22 without power for any length of time in the period
23 after this storm, the June 29 storm?

24 MR. WENDT: Vague. Lacks foundation.

25 A. Well, we have 520,000 customers. And from the

1 June 29 storm from the derecho, we had about 98,360
2 customers that lost power at some point, either as
3 the storm hit or immediately following. So that's,
4 what, it's over ten percent. I mean, it's -- I
5 can't do the math right now.

6 Q. That's okay. It doesn't sound like a significant.

7 A. It wasn't a, I mean, we were -- no, it wasn't. It
8 was a large number of customers, but it wasn't
9 significant. I mean from a mathematical
10 standpoint, it wasn't significant.

11 Q. I want to talk to you about your chart on page 11
12 of your testimony, Exhibit 1.

13 A. Okay.

14 Q. According to your chart here, Level 3 storm
15 restoration time is greater than 48 hours. Am I
16 reading that right?

17 A. That's typically what it will be. It will exceed
18 48 hours, yes.

19 Q. And if I look at Level 4 restoration time is four
20 to five days.

21 A. Or more. Those are the words that are missing out
22 of that. It's in the definition. It's four to
23 five or more days.

24 Q. Is it fair for me to assume that at a Level 3
25 storm, it would be between two and four days?

1 A. That would be our goal, yes.

2 Q. According to the storm reports that the OUCC got,
3 storm restoration took six days before you had
4 everybody back up. Does that track with your
5 understanding?

6 MR. WENDT: Lacks foundation. Assumes facts
7 not in evidence.

8 A. Not from the June 29 storm, no, that's not correct.

9 Q. Okay. What is the correct number of days?

10 A. Five.

11 Q. And if I tell you that the company reported six
12 days, that would be inaccurate?

13 MR. WENDT: Same objections, and assumes an
14 incomplete hypothetical.

15 A. The thing that comes into play is that there were
16 three storm events. If you look, it took until
17 Wednesday, which would have been the sixth day, to
18 get everybody restored from the second and third
19 storms that occurred during that period. The
20 customers that lost power on June 29 were restored
21 as of 5:00 on July 4.

22 Q. Okay. So how do you attribute the six days? What
23 are those customers?

24 A. Those were the customers that rolled, that had lost
25 power on the storm that hit -- we had a

1 thunderstorm that rolled through Friday night into
2 Saturday morning.

3 Q. Right.

4 A. And then there was another severe thunderstorm that
5 rolled through on Sunday afternoon around 4:00.
6 From a restoration standpoint, those customers went
7 in line behind the June 29th customers. So we
8 finished up all the June 29th customers on the 4th
9 of July, but there were still some straggler
10 customers from the second and third storm that did
11 not get restored until early on Wednesday.

12 So that's how, from a storm management
13 standpoint, we didn't complete. We were tracking,
14 I was tracking all three sets of customers
15 separately.

16 Q. Okay.

17 A. Focusing on getting the June 29th customers,
18 getting all them back in as quickly as possible.
19 They went in line ahead of, to an extent. There's
20 a lot of stuff that goes on simultaneously. But
21 there were customers that from Saturday and from
22 Sunday that did not get fully restored until
23 Wednesday.

24 So that's, it gets confusing but, as I say, we
25 were dealing with three separate storm events that

1 all occurred in just rapid succession.

2 Q. For purposes of the company's restoration efforts,
3 though, I assume you were still fully mobilized
4 during this whole period?

5 A. We were fully mobilized, and we were managing not
6 only the outages that had occurred from the three
7 storms, but we also had outage that was coming in
8 because of just cars hitting poles and other
9 things. So we were monitoring and managing the
10 total outage that we had, as well as the subset of
11 outage for each of the three storm events.

12 Q. You mentioned cars hitting poles. Was this a, was
13 this unique to this particular period?

14 A. No. It happens every day.

15 Q. Did there come a time during the June 29 storm
16 event, or the subsequent storms that happened
17 during that period through July 5, did there ever
18 come a time that you had the need or decided you
19 had a need for outside assistance?

20 A. We started making those phone calls Thursday night.

21 Q. Okay.

22 A. It wasn't until Friday that we were able to obtain
23 20 additional line crews from out of state and
24 brought them in.

25 Q. Now, I understand that the company belongs to two

1 different regional mutual assisting groups.

2 There's the Great Lakes Group and then the Midwest
3 Group; is that correct?

4 A. That is correct.

5 Q. Are those who you contacted, one or the other or
6 both?

7 A. We did not. We made contact with our, the
8 contractors on property, asking if they could, if
9 they had any out of state, any crews out of state
10 that we could bring in. We had indications
11 Thursday night, at least from the Great Lakes
12 Group, that if there was a call, there were no
13 resources available at that point.

14 Q. That was somebody, some representative from that
15 group told somebody from the company?

16 A. Our mutual assistance coordinator had some contact
17 with his counterparts at the other companies, and
18 that is what he was told; that everybody would be
19 holding because the weather, it was a very large
20 system, had moved across many of the member
21 companies. And at that point nobody would release
22 any resources.

23 So we pursued our contractors to see if they
24 could, what they had, the crews that were not
25 working for an investment-owned utility, might be

1 working for an REMC or for a municipal that's not a
2 part of one of the mutual assistance groups. And
3 we've had success in the past and have been able to
4 get crews that way.

5 Q. It's my understanding that nobody, no group or
6 entity offered to assist you?

7 A. No.

8 Q. Did the company seek help from any other Indiana
9 utilities, like I&M or NIPSCO?

10 A. They were dealing with their own storm outages.
11 They didn't have anybody.

12 Q. NIPSCO had significant storm outages?

13 A. They had outages. They got storms. I don't recall
14 now what their outage numbers were.

15 Q. Did you contact them, or did you just assume they
16 weren't?

17 A. We did not contact them.

18 Q. So did you eventually get outside assistance?

19 A. We did. As I said, we were able to obtain 20
20 additional line crews from out of state that
21 arrived on Friday to assist. So that took us up to
22 104 total line crews available, which is more than
23 we've ever used for a restoration event.

24 Q. And, I'm sorry, can you tell me again where these
25 came from, if you know?

1 A. We got some crews from Ohio. We got crews from
2 Tennessee. I think we got some crews out of
3 Kentucky. Those are the ones I recall offhand.

4 Q. So when you have outside crews, in addition to your
5 independent contractors, in addition to your
6 company line crews, is there an order of dispatch
7 how resources are used? Do you exhaust your own
8 resources before taking help from outside
9 resources?

10 A. No. From a dispatch standpoint everybody is equal.
11 The difference, the only difference is that with
12 the AES Indiana line crews, we're able to, they
13 have mobile data terminals in their trucks. We can
14 dispatch the work directly to them.

15 The contractor crews do not have mobile data
16 terminals, so we have to put a crew guide with
17 them. Usually there's one person, one crew guide
18 per four line crews. The crew guide has a laptop
19 computer that can get connected into our system, so
20 we can dispatch work to them, and then the crew
21 guide manages.

22 So it adds an extra layer of complexity in a
23 sense to the dispatching process, but that's how,
24 because we dispatch all of the work of the crews
25 electronically. We don't do it over the air on the

1 radio channels. It's just much more efficient and
2 keeps the radios clear for other things.

3 Q. According to, and I'm going to look at Deposition
4 Exhibit 2, which are the answers to data requests,
5 and response to 10-8 says that the company's
6 Emergency Response Plan has not been updated since
7 the June 29 storm. Is that correct?

8 A. That's correct. We haven't done any changes.

9 Q. Are you anticipating making any?

10 A. It depends. We're still working through -- after a
11 major storm like this, one of the things we always
12 do is do an after-action review, debrief with all
13 the people in the field, ask them what went well,
14 what didn't. You know, if they were incident
15 commander for a day, what would they have done
16 differently.

17 We're still gathering that information. And
18 then the storm management team will meet, and we'll
19 go through all of those comments and decide what,
20 you know, if there are things, comments that we've
21 received from the field on how we could have done
22 things differently that might have been more
23 efficient for them or whatever, we'll review that.
24 And then at that point we'll make appropriate
25 changes to the storm plan, if warranted.

1 Q. So you're telling me that the after-action report
2 is not completed yet?

3 A. It is not complete.

4 Q. When do you anticipate that being complete?

5 A. At this point I hope to have it done by the end of
6 September would be my goal.

7 Q. Let's talk generally about AES Indiana's Emergency
8 Response Plan. My understanding is that it hasn't
9 been updated since 2007. Would that be correct?

10 A. That's not correct.

11 Q. Okay. When was the last update?

12 A. The 2007 was the last, was when we completely
13 revamped our storm response plan. We brought an
14 outside consultant in to help us do that. She had
15 run Hurricane Andrew with Florida Light & Power,
16 and then went out and started her own business to
17 help utilities write storm response plans.

18 So we did a full revision in 2007. Since then
19 we review the plan each year. We will update the
20 organizational structure for the response plan as
21 people move positions. We may need to replace a
22 storm manager or one of the storm coordinators
23 because they've moved on to another role. We try
24 to do that each spring before storm season. So the
25 plan is reviewed each year.

1 My personal opinion is it's still a good plan,
2 and there's no need to do a full refresh of it.
3 It's just do updates and do tweaks.

4 Q. What prompted the update in 2007, if you recall?

5 A. We had a new senior vice president that thought we
6 needed to update our storm plan.

7 Q. Can you tell me generally -- this is a general
8 question -- you've been there at the company for a
9 long time. How has IPL and then AES Indiana's
10 Emergency Response Plan evolved over the years, or
11 changed over the years?

12 MR. WENDT: Lacks foundation. Vague.

13 Hypothetical, incomplete hypothetical.

14 A. My personal opinion, it has improved and continues
15 to improve with each storm.

16 Q. Has the company always had an Emergency Response
17 Plan, or was there a time in your tenure when they
18 didn't have one?

19 MR. WENDT: Same objections.

20 A. There's always been a storm plan. There's always
21 been a written, written document.

22 Q. Okay. Going back to Table 1 on page 11 of your
23 testimony, other than the Customers Affected line,
24 are these national or regional standards that you
25 use, or was this specifically drawn up by IPL, AES?

1 A. These are AES Indiana numbers. Each utility has
2 their own definitions for how they define storms.

3 Q. So going back to this storm or collection of storms
4 that started on June 29, and it took six days to do
5 a complete restoration, which is off your chart
6 here, at least on the chart that you've provided,
7 any reason?

8 MR. WENDT: Misstates the testimony.

9 A. The chart, what's represented in the chart is for
10 an individual storm. So the June 29 storm was the
11 Level 3 storm. It was a five-day restoration, so
12 it exceeded the 48 hours. But the subsequent
13 storms were kind of, I would call them stand alone.
14 I mean, they were sequential, but they were working
15 three restorations at that point.

16 Q. Okay. Let's break it down then. You indicated,
17 when I asked you what percentage of your customer
18 base lost power for any period of time as a result
19 of the June 29 storm, you said ten percent.

20 A. It would be a little bit more than ten. Like I
21 say, what I said was the June 29 storm, we had
22 98,360 customers that lost power. That was on
23 June 29.

24 Q. Okay. How about as a result of the next storm?

25 A. The Friday night storm, that hit Friday night into

1 Saturday morning, was around, right around 6700
2 customers lost power in that, approximately, give
3 or take a few.

4 Q. And how about the third storm event?

5 A. And then the storm on Sunday afternoon, the severe
6 thunderstorm that came through, there was about
7 7800 customers lost power in that storm.

8 Q. And, again, you've described your dispatch, the
9 number of crews that you had working. And that
10 didn't change during the time, did it?

11 A. No. We continued to make phone calls throughout
12 the weekend, but we were not able to obtain any
13 additional resources.

14 Q. Do you consider six days to completely restore from
15 these storms to be excessive?

16 MR. WENDT: Lacks foundation. Speculation.
17 Vague.

18 A. For the severity of damage that we had, and the
19 number of incidents that we had to restore, no. I
20 think this restoration was right in line with prior
21 restorations for major Level 3 storms.

22 Q. Was there anything about the response that you feel
23 could have been better?

24 MR. WENDT: Same objections. Incomplete
25 hypothetical.

1 A. In my opinion, no.

2 Q. Handled perfectly to the best of your ability?

3 A. We had, there's never a perfect restoration, but I
4 believe we handled it to the best of our ability.

5 Q. According to the response to Data Request 1, which
6 I understand you did not participate in, but I'm
7 going to ask you some questions anyway, if you can
8 answer them, according to that you had, at that
9 time that you answered this, 3,926 miles of
10 overhead primary distribution lines. Do you see
11 that there?

12 A. No. That sounds about, that number sounds about
13 right. I know it's around 4,000, 4,000 miles of
14 overhead line.

15 Q. According to, again, according to the response to
16 the DR 10-1, the company has performed vegetation
17 management on 3,461 miles of distribution lines
18 since 2018.

19 MR. WENDT: Can you point that out? I don't
20 see that in this answer.

21 A. I don't see that either.

22 Q. I guess I'm extrapolating from the chart at the
23 bottom of that answer. It talks about box trim and
24 number of miles per year where vegetation
25 management was performed. Do you see that?

1 A. Oh, under the distribution part?

2 Q. Yeah. We're talking about distribution lines here.
3 So you are welcome to check my math, but according
4 to my math that's 3,461 miles of distribution lines
5 that had some vegetation management work done since
6 2018.

7 Do you want a calculator, or are you going to
8 take my word for it, subject to change?

9 A. No, I'll take your word for it. That looks like
10 it. It would be close.

11 Q. My question is this leaves, according to my math,
12 and I'm not good at math, this leaves 465 miles of
13 line that have seen no vegetation management since
14 2018. And my question is do you know why not?

15 MR. WENDT: Lacks foundation.

16 A. No. Again, as I say, I don't have any direct
17 responsibility for our vegetation management
18 program, so I don't know the answer to that.

19 Q. Is it unusual for in five years that all the lines
20 were not trimmed?

21 MR. WENDT: Same objection. Assumes facts.

22 A. Again, I don't manage that program, so I don't know
23 the particulars.

24 Q. What is the status of your, of the company's labor
25 agreements with your line crews and independent

1 contractors?

2 MR. WENDT: Lacks foundation.

3 A. With the AES crews, they are all members of the
4 IBEW.

5 Q. I'm sorry. Which crews?

6 A. The AES crews. That contract is, I want to say
7 it's probably up the end of next year, 2024, I
8 believe. I'm going off memory. I think that's
9 correct.

10 Q. So the AES Indiana crews are unionized?

11 A. Yes.

12 Q. Do you know about your independent contractors?
13 Are they unionized?

14 A. They are mixed. There are some of the contractors
15 that are union. They are part of the IBEW, but a
16 different IBEW section than what our crews belong
17 to. And then there are, I think, two or three of
18 the contractors that they are not union, so we have
19 a mix.

20 Q. Do you have any problem getting outside help
21 because of the fact that not all your people are
22 union contract?

23 MR. WENDT: Lacks foundation. Calls for
24 speculation.

25 A. I'm not sure I understand what you mean by do we

1 have --

2 Q. Well, it's my understanding that sometimes
3 unionized crews do not want to work for companies
4 that don't have totally unionized groups. That's
5 my understanding.

6 A. Oh, I'm not aware that we've had any issues.

7 MR. HELMEN: Can we go off the record, please?

8 MR. WENDT: Yeah, sure.

9 (A recess was taken.)

10 MR. HELMEN: Let's go back on the record.

11 Q. We're almost done.

12 A. Okay.

13 Q. I do want to go back and cover a couple of areas
14 that we've touched on that I need a little more
15 explanation on. Okay?

16 A. Okay. That's fine.

17 Q. I asked you about both the Midwest and the Great
18 Lakes Mutual Assistance Groups. I think you told
19 me that you did contact Great Lakes?

20 A. We informally contacted Great Lakes.

21 Q. How does one do that?

22 A. We didn't make a formal request for a call.

23 Q. How come?

24 A. We were still assessing what we had. And the fact
25 that we had already had 84 line crews on property

1 right out of the gate, we felt like we were in a
2 pretty good position at that point that we could,
3 we didn't need to pull that trigger just yet.

4 Q. In hindsight do you wish you had?

5 A. No.

6 Q. Did you contact the Midwest Mutual Assistance
7 Group?

8 A. We did not, mainly because the thing to remember,
9 when you request, it's going to be at least 24
10 hours before those crews will get on property. If
11 we go to the Midwest Group, that adds about another
12 day to it. So it was going to be at least two days
13 before those resources could probably get here.
14 And on Friday I felt like we would be pretty close
15 to being done before they could even get here.

16 Q. Is that how it's designed to work? I mean, it's an
17 organization that I assume is there to assist you
18 in emergency storm situations; right?

19 A. Uh-huh.

20 MR. WENDT: Compound. Lacks foundation.
21 Calls for speculation.

22 A. That's, it's there to replace, to make mutual
23 assistance a more organized process than what it
24 used to be. But the fact of the matter is it still
25 takes, when you're moving line crews hundreds of

1 miles in a line truck, it takes a long time. When
2 you're moving 30, 40 line trucks in a convoy, when
3 they stop to get gas takes three hours. I mean,
4 it's just the logistics that's involved.

5 So we always figure that it's a minimum of 24
6 hours from the time you ask for mutual assistance
7 before you can expect that those crews will be on
8 property, ready to start going through orientation,
9 training, be able to go to work. And that's if
10 they're coming within a reasonable distance. The
11 further out you go, the longer it takes to get
12 crews here.

13 It takes our crews two days to get to Florida
14 to stage for personnel. So it's not a quick
15 process, but it's efficient from the standpoint of
16 being able to get access to crews. That part of
17 the process is very efficient. But you still have
18 the logistics piece, then, of physically moving
19 those crews from point A to point B.

20 Q. So as you explained it to me, it sounds like there
21 was no formal request. It was just an informal
22 inquiry?

23 A. It was an informal inquiry to see if there would be
24 any resources nearby that we could get.

25 Q. And the response was?

1 A. No.

2 Q. How about the Great Lakes Mutual Assistance -- I'm
3 sorry. That is the Great Lakes. How about the
4 Midwest? Did you contact them?

5 A. We did not contact Midwest at all.

6 Q. Did you contact any other Indiana utilities that we
7 haven't talked about, including REMCs or
8 municipals, for assistance?

9 A. We don't have agreements with, we've never had the
10 ability to.

11 Q. Have you ever used people from the Great Lakes
12 Mutual Assistance Group? Have you ever made a
13 formal request?

14 A. From Great Lakes, yes.

15 Q. Do you remember when the last time was you did
16 that?

17 A. July 29.

18 Q. On the July 29 storm?

19 A. On the July 29 storm we made a formal request. We
20 requested, in that storm we requested 80 linemen,
21 and we got 13.

22 Q. And I assume you also had your full?

23 A. We had, we had -- yeah. We didn't have all 84
24 contractors on that because that storm hit on a
25 Saturday. So some of the contractor crews were out

1 of town, so not all of them were available to us.
2 So we didn't have all 84 line crews for that storm
3 because of that storm hitting on the weekend
4 because some of them had already gone. The crews
5 that were off on Friday had already gone home
6 Thursday night.

7 Q. So how many internal crews did you have available
8 for the weekend?

9 A. Well, we had our 21 crews. We had, I think in all
10 we had about 40 contractor crews for that storm
11 that were available. So about half of what we had
12 for the June 29 storm.

13 Q. Okay. If you reported that it took you roughly 45
14 hours, I think, to totally restore your system
15 after the June 29 storm, does that sound about
16 right?

17 A. You mean July 29?

18 Q. July 29. I'm sorry, July.

19 A. That sounds about right, yes.

20 Q. I'm curious why on that storm, you may have just
21 told me, why on that storm you decided to seek the
22 assistance of Great Lakes, but you didn't on the
23 June 29.

24 A. On July 29, again, that storm hit on a weekend. We
25 right out of the gate knew we didn't have near as

1 many contractor crews available to us as what we
2 had on June 29. So, again, it was a numbers thing.

3 Q. Okay. That's because it was a weekend?

4 A. It was because it was a weekend.

5 Q. And the independent contractors had left?

6 A. Like I say, a lot of those guys live out of state.
7 Some of them live in West Virginia. So, you know,
8 we attempted to get them recalled, but we didn't
9 have a lot of success.

10 Q. And the reason they were here for the June 29 storm
11 is because you told them before the weekend
12 started?

13 A. It hit on Thursday, when everybody was still here.
14 And before they went home on Thursday, we told them
15 we want you back in on Friday. Don't go home.

16 Q. If we can go back and visit a topic we've talked
17 about, and that is the outside crews that came in
18 to assist you for the June 29 storm. Where
19 specifically did they come from? Ohio?

20 A. Again, as I recall, they came from Ohio. I think
21 we had some crews out of Tennessee, and I thought
22 there were some crews out of Kentucky. There may
23 have been another state. Those are the three I
24 recall for certain.

25 Q. Were you involved in the process of requesting that

1 relief or that help?

2 A. Personally, no. One of the other incident
3 commanders was taking care of that.

4 Q. You don't know who?

5 A. David Baldwin was making those calls.

6 Q. Who is your immediate supervisor?

7 A. Roderick Conwell.

8 Q. Who would his immediate supervisor be?

9 A. Kathy Storm.

10 Q. Kathy Storm?

11 A. Storm, S-T-O-R-M.

12 Q. You've got to be in the group. And do you have any
13 personal recollection of when they were first
14 contacted, these outside groups?

15 A. Which storm? June 29?

16 Q. I'm sorry. Yes.

17 A. We've been talking about both.

18 Q. I know.

19 A. David was making calls Thursday evening, the 29th.
20 He was making contact with our contractors to see
21 what they could do.

22 Q. So was it your contractors who were able to hook
23 you up with the crews from Ohio and Tennessee and
24 Kentucky?

25 A. It was through them we were able to obtain

1 additional resources.

2 Q. When did those crews begin arriving?

3 A. On Friday. I can't tell you exactly when, but they
4 started getting in on Friday.

5 Q. Okay. And I can't remember if that was in the
6 total. Was that in the total? Because you talked
7 about, I think, 84 crews between your internal --

8 A. Yeah. The 84 was just what was on property
9 Thursday night. And then the additional assistance
10 we got represented another 20. So that got us to
11 the 104 that we had.

12 Q. So that included, the 104 included the outside?

13 A. The 104 includes the additional outside resources
14 we brought in.

15 Q. So they were pretty much incorporated in your storm
16 restoration efforts immediately when they got here?

17 A. As soon as they got here, we did a safety
18 onboarding with them, where we go through our
19 safety procedures, what our switching procedures
20 are, how we handle clearances, how we do
21 lockout/tagout. And then once they're done with
22 that, they're assigned to a crew guide. We put
23 work on the crew guide, and they go to work.

24 Q. And roughly how long does that orientation last?

25 A. The safety orientation, I want to say, takes a

1 little over an hour, at least, to go through
2 everything, and to answer their questions.

3 Q. And the July 29 storm, you did not use outside?

4 Oh, you used what you got from Great Lakes?

5 A. Yeah. Like we got, like I say, we requested 80, 80
6 linemen, line personnel, and we got 13 allocated to
7 us. So that represented about four additional line
8 crews that we brought in. That was all we were
9 able to get that weekend.

10 Q. We might have touched on this before, but do you
11 remember the storm investigation in Cause Number
12 41962?

13 A. What year was it? I know you guys operate in cause
14 numbers. I need years.

15 Q. Somebody wrote it down for me because I didn't
16 remember. I'm talking about the investigation in
17 2001 to 2002.

18 A. Oh, okay.

19 Q. Which I've got to tell you, the collaborative that
20 came out as a result of that, if I'm thinking
21 correctly, was the best collaborative I've ever
22 been involved in.

23 A. Actually, the collaborative came out of the 2015.

24 Q. Oh, no. I'm talking way back because I remember
25 you had a lot of linemen there, and they were so

1 proud of the work they did, and they wanted to talk
2 about the work they did. It was in the basement of
3 the --

4 MS. NYHART: I'd hate to say it was in the
5 basement of our building at that time.

6 Q. Anyway, I'm trying to compliment you, but you're
7 not taking it.

8 A. Well, I just remember the collaborative that we did
9 after the, that everybody was involved in after
10 network events back in 2015. That's the one I
11 remember, but there may have been one after the
12 2001.

13 Q. What network event? Are you talking about the
14 manhole things?

15 A. Uh-huh.

16 Q. Wasn't that 2012 when the Super Bowl was here?

17 A. Well, it was, yeah, 2012. '12 or '13. I know it
18 was the 2015 rate, it was the rate case in 2015. I
19 just remember that part of it.

20 Q. We're right there together, pal.

21 A. We've been around here too long. Anyway, what was
22 your question?

23 Q. Well, I'm getting ready to ask it. The storm that
24 you were talking about, the cause number that I was
25 talking about had to do with the storm that

1 happened on July 8, 2001, which is just right after
2 I started here, pretty much. And according to that
3 order it says that about 7,512 customers were
4 without service for more than 48 hours. Does that
5 sound about right?

6 MR. WENDT: Lacks foundation.

7 A. I honestly don't remember.

8 Q. I comment because compared to the recent storms,
9 that's so few customers being out, yet they, the
10 commission ordered an investigation. In that case,
11 again, if you recall, then IPL agreed to credit
12 customers that had been out for a period of time
13 with a certain amount of money. And they did it on
14 a 30-day filing, a hundred bucks customer credit, I
15 think.

16 A. I remember something, but I don't remember --

17 MR. WENDT: There is no question pending.

18 A. Okay.

19 Q. Well, my question was do you recall that?

20 A. I don't recall that, no.

21 Q. Is that anything that AES Indiana is considering
22 doing in this case for customers who were out for
23 an extended period of time?

24 MR. WENDT: Lacks foundation. Vague.

25 A. I've not been involved in any of those discussions.

1 If they have been, I don't know.

2 Q. Back in that investigation there was a lot of talk
3 about the CAIDI, SAIFI and SAIDI indexes. Do you
4 remember that?

5 A. Oh, yes.

6 Q. Are you familiar with those indexes?

7 A. Yes, I am.

8 Q. How would you say the State of Indiana, and I do
9 not have the numbers here, but how would you say
10 the state of AES Indiana's numbers, those numbers,
11 look right now?

12 MR. WENDT: Lacks foundation. Vague.

13 A. Overall they look pretty good. We are like the
14 second decile in the company is where I recall
15 indices kind of fall, so.

16 Q. Do you know how AES Indiana's numbers compare to
17 other utilities in Indiana?

18 A. I thought we were number two in most of them.

19 Q. Behind who? Do you know who was number one?

20 A. I want to say it was CenterPoint, but I don't
21 remember the last numbers that came out this
22 spring. I don't recall.

23 MR. HELMEN: Let's go off the record for a
24 second, please.

25 (Off the record.)

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MR. HELMEN: Back on the record. I don't have any other questions for you, Mr. Holtsclaw. Thank you very much for your time.

MR. WENDT: No questions from me. We'll read and sign.

AND FURTHER DEPONENT SAITH NOT

Michael Holtsclaw

STATE OF INDIANA)
) SS:
COUNTY OF HAMILTON)

I, Kathleen Andrews, Notary Public in and for said county and state, do hereby certify that the deponent herein was by me first duly sworn to tell the truth in the aforementioned matter;

That the deposition was taken on behalf of OUCG at the time and place heretofore mentioned, with counsel present as noted.

That the deposition was taken down in Stenograph notes, reduced to typewriting under my direction, is a true record of the testimony given by said deponent, and was thereafter presented to the deponent for signature.

That this certificate does not purport to acknowledge or verify the signature hereto of the deponent.

I do further certify that I am a disinterested person in this cause of action; that I am not a relative or attorney of any of the parties or otherwise interested in the event of this action, and am not in the employ of the attorneys for the respective parties.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 12th day of September, 2023.

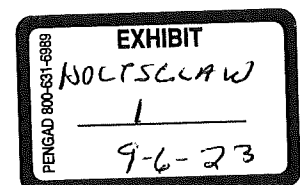


Kathleen Andrews, Notary Public

Commission expires: March 22, 2031.
Commission number: NP0665722

FILED
June 28, 2023
INDIANA UTILITY
REGULATORY COMMISSION

VERIFIED DIRECT TESTIMONY
OF
MICHAEL L. HOLTSCLAW
ON BEHALF OF
INDIANAPOLIS POWER & LIGHT COMPANY
D/B/A AES INDIANA
Cause No. 45911



**VERIFIED DIRECT TESTIMONY OF MICHAEL L. HOLTSCLAW
ON BEHALF OF AES INDIANA**

1. INTRODUCTION

1

2 **Q1. Please state your name, employer, and business address.**

3 A1. My name is Michael L. Holtsclaw. I am employed by Indianapolis Power & Light
4 Company d/b/a AES Indiana (“AES Indiana”, “IPL”, or “the Company”). My business
5 address is One Monument Circle, Indianapolis, IN 46204.

6 **Q2. What is your position with AES Indiana?**

7 A2. I am Director of Transmission Field Operations.

8 **Q3. On whose behalf are you submitting this direct testimony?**

9 A3. I am submitting this testimony on behalf of AES Indiana.

10 **Q4. Please describe your duties as Director of Transmission Field Operations.**

11 A4. I am responsible for the real time operations of the AES Indiana transmission and
12 distribution systems, the operations and maintenance of all AES Indiana substations,
13 outage restoration efforts, and the operation of the downtown secondary electrical network.

14 **Q5. Please summarize your education and professional qualifications.**

15 A5. I am a graduate of Purdue University with a Bachelor of Science in Electrical Engineering
16 Technology. I am a registered Professional Engineer in the State of Indiana and the State
17 of Ohio.

18 **Q6. Please summarize your prior work experience.**

1 A6. I have over forty-four years of experience with AES Indiana's Distribution and
2 Transmission service operations groups. Specifically, I have eight years of experience in
3 Distribution and Transmission system planning, thirteen years' experience as a Supervisor
4 in underground engineering, two years' experience as Superintendent of Electrical, three
5 years' experience as Team Leader of Transmission Operations, seven years as Director,
6 Power Delivery Operations, two years as Director Engineering & Compliance, five years
7 as Director, Transmission & Distribution Engineering, and as of the date of the prefiling
8 of this testimony four years in my current role as Director of Transmission Field
9 Operations.

10 **Q7. Have you testified previously before the Indiana Utility Regulatory Commission**
11 **("Commission") or any other regulatory agency?**

12 A7. Yes. I have filed written testimony before the Commission in Cause No. 44540 on AES
13 Indiana's transmission system, in Cause No. 43245 on the Federal Energy Regulatory
14 Commission's ("FERC's") Seven Factor Test, in Cause No. 42685 regarding IPL's request
15 to transfer functional control of transmission assets to the Midcontinental Independent
16 System Operator ("MISO"), in consolidated Cause Nos. 44576/44602, regarding IPL's
17 basic rates and the downtown network investigation, and Cause No. 45029, IPL's last basic
18 rate case.

19 **Q8. What is the purpose of your testimony in this proceeding?**

20 A8. My testimony discusses AES Indiana's test year end used and useful Transmission and
21 Distribution ("T&D") plant in service. I explain why a five-month average for transmission
22 and distribution inventory is representative as presented by AES Indiana witness Coklow
23 in AES Indiana Financial Exhibit AES IN-RB, Schedule RB7, Electric Materials and

1 Supplies Inventory. I also provide an update on MISO Transmission Expansion costs that
2 are included in the test year as non-fuel costs. I discuss declared storm events relevant to
3 the pro forma adjustment shown in AES Indiana Financial Exhibit AESI-OPER, Schedule
4 OM11 – Storm Expense and provide an update on AES Indiana’s Major Storm Damage
5 Restoration Reserve.¹

6 **Q9. Are you sponsoring or co-sponsoring any financial exhibits or attachments?**

7 A9. Yes. I sponsor or co-sponsor the following financial exhibits or attachments:

- 8 • AES Indiana Financial Exhibit AESI-OPER, Schedule RB7 – Electric Materials
9 and Supplies Inventory
- 10 • AES Indiana Financial Exhibit AESI-OPER, Schedule OM10 – Non-Jurisdictional
11 MISO MTEP Operating and Maintenance Expenses
- 12 • AES Indiana Financial Exhibit AESI-OPER, Schedule OM13– MISO Non-Fuel
13 Costs

14 **Q10. Did you submit any workpapers?**

15 A10. Yes, workpapers are provided in electronic format that support the financial exhibits that I
16 sponsor.

17 **Q11. Were these exhibits, attachments, or workpapers, or portions thereof, that you are**
18 **sponsoring or co-sponsoring prepared or assembled by you or under your direction**
19 **and supervision?**

20 A11. Yes.

¹ AES Indiana Financial Exhibit AESI-OPER, Schedule OM11 is sponsored by AES Indiana witness Aliff.

1 **2. TRANSMISSION AND DISTRIBUTION PLANT IN-SERVICE**

2 **Q12. Please provide an overview of AES Indiana’s transmission system as it existed on**
3 **December 31, 2022.**

4 A12. The AES Indiana transmission system consists of approximately 458 miles of 345,000 volts
5 (345 kV) lines, 408 miles of 138,000 volts (138 kV) lines and associated substations.

6 There is a 345 kV ring around Marion County with multiple 345 kV lines that interconnect
7 into the ring at four different locations. Inside of the 345 kV ring is a 138 kV ring/grid.
8 These two rings are connected through 345 kV to 138 kV auto-transformers at six locations.
9 This allows power to flow from the 345 kV transmission system to the 138 kV system. The
10 customers within the AES Indiana service territory are connected to the 138 kV system.

11 AES Indiana has generation connected to the 345 kV system at the Petersburg Generating
12 Station and generation connected to the 138 kV system at Harding Street Station and Eagle
13 Valley Generating Station. Supporting the AES Indiana transmission system is the 20 MW
14 Harding Street Station Battery Energy Storage System located at the Harding Street Station
15 and the +300/-100 MVAR Static VAR Compensator located at the Southwest Substation.

16 All of these resources work together to support the resiliency of the AES Indiana
17 Transmission and Distribution System. Consistent with state policy, the Transmission and
18 Distribution System is integral in providing customers with reliable service and a stable
19 source of electricity in which frequency and voltage are maintained consistent with
20 industry standards.

21 **Q13. Please explain how AES Indiana’s transmission system is interconnected with the**
22 **transmission systems of other electric utilities in Indiana.**

1 A13. AES Indiana operates 23 transmission substations in its transmission system which is
2 operated as part of a larger integrated network transmission system commonly referred to
3 as the Eastern Interconnection. The Eastern Interconnection is that portion of North
4 America east of the Rocky Mountains, excluding the State of Texas. The AES Indiana
5 transmission system is directly connected to the transmission systems of Duke Energy
6 Indiana (“Duke”), American Electric Power (“AEP”), CenterPoint Energy (“CPE”),
7 previously known as Vectren, and Hoosier Energy (“HE”). Through the interconnections
8 with these other utilities power can flow into and out of the AES Indiana transmission
9 system. The AES Indiana transmission system also operates as a part of the MISO, Central
10 Region. This provides additional reliability and resiliency along with access to the MISO
11 Energy market to obtain power for our customers.

12 The AES Indiana transmission system is connected at both the 345 kV and 138 kV level
13 with other utilities. At the Petersburg Generating Station there are 345 kV interconnections
14 with Duke and AEP and 138 kV level interconnections with Duke, HE, and CPE. In the
15 Indianapolis area, AES Indiana’s transmission system is interconnected at the 345 kV level
16 with Duke and AEP, and at the 138 kV level with Duke.

17 **Q14. Please provide an overview of AES Indiana’s electric distribution system as it existed**
18 **on December 31, 2022.**

19 A14. The AES Indiana distribution system serves approximately 519,000 retail customers spread
20 across the 528 square mile service territory in central Indiana. There are 432 primary
21 distribution circuits served from 62 distribution substations. The AES Indiana distribution
22 system consists of 3,926 miles of overhead primary distribution lines and 4,299 miles of
23 underground primary distribution lines operating at 4,160 volt (4 kV), 13,200 volt (13 kV),

1 and 34,500 volt (34 kV). The AES Indiana secondary system are those lines and facilities
2 that operate below 600 volts. The vast majority of the AES Indiana customers are served
3 directly from the secondary distribution facilities. This includes the street lighting facilities.
4 The secondary distribution system consists of 3,065 miles of overhead secondary lines and
5 1,939 miles of underground secondary lines.

6 **Q15. Please describe the overall condition of AES Indiana's transmission and distribution**
7 **plant.**

8 A15. The overall condition of the AES Indiana transmission and distribution system is good.
9 AES Indiana performs regular routine maintenance to keep the system in good working
10 order.

11 **3. TRANSMISSION AND DISTRIBUTION INVENTORY**

12 **Q16. Please explain why a five-month average is representative of transmission and**
13 **distribution inventory as presented by AES Indiana witness Coklow (Q/A 15).**

14 A16. The Company is proposing to use a five-month average for inventory costs for transmission
15 and distribution inventory because recent supply chain issues and inflation have increased
16 the cost of these materials & supplies and high lead times have caused AES Indiana to
17 increase inventory to serve customers. A five-month average is in line with what the
18 Company expects costs of current operations to be for the next several years than a 13-
19 month average. The 13-month average inventory cost from December 1, 2021 through
20 December 31, 2022 was \$37.9 million. The 5-month average from August 1, 2022 through
21 December 31, 2022 was \$49.7 million. The inventory cost for poles were moved into
22 inventory in August 2022. This accounted for an increase of approximately \$4 million in
23 total inventory value. Prior to that, the pole costs were not in inventory and were

1 consignment costs that were charged when the poles were delivered for a project. Also, in
2 August 2022 the Company began taking delivery of the additional materials that had been
3 ordered to offset supply chain issues and longer lead times. This additional inventory
4 material resulted in an increase in total inventory value.

5 **Q17. Please further discuss how supply chain issues and inflation has affected transmission**
6 **and distribution inventory.**

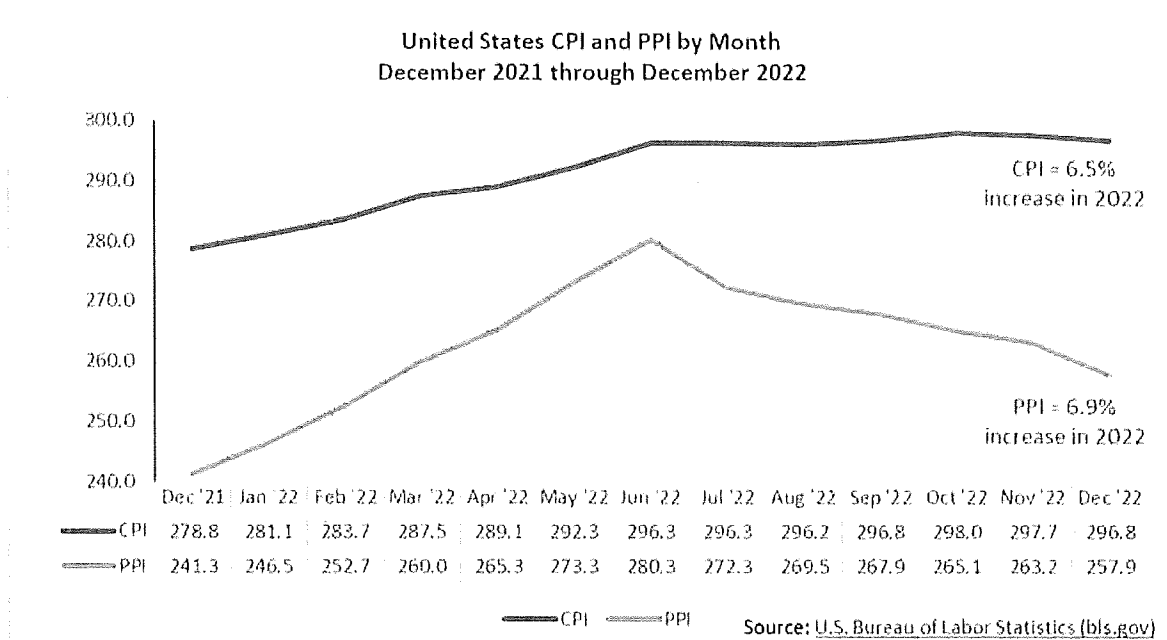
7 A17. During the COVID-19 Pandemic, the Supply Chain department at AES Indiana noticed
8 that material lead times had increased substantially and prices for items increased over and
9 above the Producer Price Index (“PPI”) and labor rates were increasing due to the increase
10 in the Consumer Price Index (“CPI”). Originally, the price increases were related to the
11 COVID-19 Pandemic and the major role it played in the global supply chain disruptions.
12 Now the price increases are driven by a high inflationary environment.

13 Because delivery lead times have increased significantly in the past two years on critical
14 stock items, AES Indiana increased inventory stock levels to ensure equipment was
15 available to meet customer in-service dates for their projects. The Company also continues
16 to experience delivery issues on materials with leads significantly longer than what they
17 were two years ago, and aggressive price increases in material and supplies. AES Indiana’s
18 Supply Chain department has continued to track the increase in lead times as well as prices
19 continuing to increase over and above the PPI.

20 **Q18. How much has the PPI and CPI increased?**

1 A18. Figure 1 below charts the monthly United States CPI and PPI from December 2021 to
2 December 2022. The CPI experienced an increase of 6.5% and the PPI experienced an
3 increase of 6.9% over the time period December 2021 to December 2022.

4 **Figure 1: United States CPI and PPI by Month**



5
6 **Q19. What other impact has supply chain issues had on the inventory levels and costs for**
7 **transmission and distribution inventory?**

8 A19. Because delivery lead times have increased significantly in the past two years on critical
9 stock items, AES Indiana has had to increase inventory stock levels to try and make sure
10 equipment is available to meet customer in-service dates for their projects. The Company
11 continues to experience delivery issues on material with leads more than double what they
12 were just two years ago. The lead time for overhead wire has gone from 12-16 weeks to
13 40-50 weeks in the past year. The lead time for wood poles has gone from 4-6 weeks to
14 12-14 weeks for distribution class poles, transmission poles are ever longer. A simple item
15 like ground rods has gone from 4-6 weeks delivery time to 52-54 weeks. The Company has

1 orders for distribution transformers that were placed in 2021 that have not yet been
2 delivered.

3 The Company has increased the inventory level by three times what used to keep in stock
4 for many stock inventory items to try and ensure materials will be available when needed
5 for customer projects and storm restoration efforts.

6 **Q20. Does the Company expect to need to maintain these inventory levels going forward?**

7 A20. Yes. The higher inventory levels are expected to be maintained going forward until lead
8 times return to where they had historically been. This is not expected to happen in the next
9 two to three years. Also, the Company is seeing an increase in the number of new projects
10 which is resulting in an increase in demand for stock materials.

11 **4. MISO TRANSMISSION EXPANSION PLANNING (“MTEP”) COSTS**

12 **Q21. How many MTEP projects are currently approved for AES Indiana’s transmission
13 system?**

14 A21. There are currently no active MISO MTEP projects located within the AES Indiana
15 transmission system footprint. There are three MTEP projects within the AES Indiana
16 footprint that have been completed and are in-service. AES Indiana submitted a project
17 which was approved as a MTEP project to replace the 345/138 kV auto-transformers in the
18 Petersburg 345 kV switchyard in 2011. The project is complete, and the auto-transformers
19 are in-service. The second MTEP project that AES Indiana completed was an upgrade to
20 the AES Indiana Petersburg to AEP Breed 345 kV line and was associated with a
21 transmission service request filed with MISO by another utility. The third MTEP project
22 is the 345 kV breaker replacements at the Petersburg Power Plant switchyard. This upgrade

1 was placed in-service in December 2015. The MISO study process determined that each
2 upgrade met the criteria for cost sharing as it provided reliability benefits to the southern
3 Indiana bulk transmission system affecting multiple utility systems. MISO is collecting
4 MTEP costs under MISO Schedule 26 for each of these projects from AES Indiana and
5 other transmission owners and remitting them to AES Indiana as MTEP revenues. AES
6 Indiana witness Aliff discusses the exclusion of these projects from the revenue
7 requirement as non-jurisdictional.²

8 **Q22. What is the expected total cost of all MTEP's to be allocated to AES Indiana over the**
9 **period 2023 through 2027?**

10 A22. The total amount of MTEP 2023 project costs allocated to AES Indiana pursuant to MISO
11 Schedule 26 is expected to be \$17.1 million between 2023 and 2027. AES Indiana currently
12 expects to be allocated \$108.2 million in MISO Schedule 26A Multi-value project costs in
13 the period 2023 through 2027. These costs are variable from year to year and are outside
14 of the Company's control. This is why the Company proposes to continue recovery of these
15 costs through the Regional Transmission Organization ("RTO") Rider.

16 **Q23. Is AES Indiana obligated to pay its portion of the MTEP costs?**

17 A23. Yes. As a Transmission Owning member of MISO, AES Indiana is obligated to pay its
18 allocated portion of the MTEP cost sharing under MISO's FERC-approved Tariff.

19 **Q24. Are the incremental costs recovered through the RTO Adjustment Rider defined**
20 **variable in amount from year to year, variable as to timing, and substantial in**
21 **individual and aggregated amounts?**

² AES Indiana witness Aliff, Direct Testimony, Q/A 17

1 A24. Yes. The non-fuel incremental MTEP costs from MISO vary from year to year depending
2 on the number of MISO approved projects. The timing of the costs varies based on the
3 construction schedules of the projects. The amount of the charges has been increasing each
4 year as more projects are approved by MISO for cost sharing.

5 **5. STORM EXPENSE**

6 **Q25. How does AES Indiana measure storms?**

7 A25. In the AES Indiana Emergency Response Plan, there are clearly defined levels of declared
8 storms. The level of the declared storm determines the support organization that is put in
9 place for the restoration effort and guides the resources that will be needed for a particular
10 restoration event. AES Indiana defines storms by their severity, number of customers
11 affected, and the estimated restoration time. The storm events are described as Level 1
12 through Level 4, with a Level 4 storm being the most severe. The criteria to define the
13 storm levels is shown in Table 1:

14 **Table 1: Defined Storm Levels**

	Level 1	Level 2	Level 3	Level 4
% of Customers Affected	N/A	< 10%	10% - 50%	> 50%
Customers Affected	< 10,000	10,000 to 52,000	52,000 to 260,000	> 260,000
Expected Restoration Time	< 24 Hours	24 - 48 Hours	> 48 Hours	4-5 Days
Internal Resources	AES Crews & Contractors	AES Crews & Contractors	AES Crews & Contractors	AES Crews & Contractors

Use Outside Mutual Assistance	No	May Use	Yes	Yes
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1 **Q26. Please discuss the declared storm event history relevant to the pro forma adjustment**
2 **shown in AES Indiana Financial Exhibit AESI-OPER, Schedule OM11 sponsored by**
3 **AES Indiana witness Aliff.**

4 A26. Level 1 and Level 2 storm events are the more common types of declared storm events to
5 occur in a year. Level 3 storms are less frequent and are normally associated with a major
6 weather event. AES Indiana has never experienced a Level 4 storm event.

7 The table below shows the number of Level 1, 2, 3, and 4 declared events from 2018
8 through the end of the test year December 31, 2022. From a historical perspective, 2022
9 was a below average storm year in the number of Level 1 and 2 declared storm events with
10 17 declared storm events. The average number of declared storm events in the past five
11 years was 23 storm events. The average for the past three years was 20 declared storm
12 events.

13 **Table 2: Storm Events**

Storm Level Declaration	2018	2019	2020	2021	2022	Last 3 Year Average	Last 5 Year Average	2023 YTD through 6/30/23
Level 1	21	21	22	20	15	19	20	5
Level 2	3	2	2	0	2	1	2	4
Level 3	2	1	1	0	0	0	1	0
Level 4	0	0	0	0	0	0	0	0
Total	26	24	25	20	17	20	23	9

14 **Q27. Why is the Company proposing to use a three-year average for storm expenses?**

1 A27. First, the average number of declared storm events has decreased slightly over the past two
2 years. The three-year average for 2020 through 2022 is more in line with the number of
3 declared storms in 2021 and 2022 (test year). The second reason for proposing a three-year
4 average is we are beginning to see the benefits of the change in the Company's construction
5 standards to help storm harden the overhead distribution system. The changes that have
6 been made to the construction standards make the distribution system more resilient and
7 less susceptible to storm damage. Over time, this should result in a decrease in the number
8 of declared storm events from less severe storms as the system will be less susceptible to
9 damage from minor weather events.

10 **Q28. Did any qualifying major storms occur during the test year ending December 31,**
11 **2022?**

12 A28. There were no qualifying major storm events that occurred during the test year ending
13 December 31, 2022.

14 **6. STORM RESERVE**

15 **Q29. How does AES Indiana determine if a storm qualifies for inclusion in the Major**
16 **Storm Damage Restoration Reserve?**

17 A29. For a storm event to be included in the Major Storm Damage Reserve it must first meet the
18 criteria for a Major Event Day ("MED") as defined by The Institute of Electrical and
19 Electronics Engineers ("IEEE") Standard 1366 and it must be classified as a Level 3 or
20 higher storm event as defined in the AES Indiana Emergency Response Plan. A MED is
21 defined as a day in which the daily SAIDI exceeds a threshold value, T_{MED} which is

1 calculated using the IEEE 1366 methodology. For 2022 AES Indiana's T_{MED} was 3.643
2 minutes. The 2023 T_{MED} is 4.201.

3 **Q30. How many qualifying storms have been charged to the Major Storm Damage**
4 **Restoration Reserve since the last update provided in Cause No. 45029?**

5 A30. AES Indiana has had no qualifying storm events for the Major Storm Damage Restoration
6 Reserve since the last Rate Order in October 2018.

7 **Q31. Is AES Indiana proposing to make any changes to the Major Storm Damage**
8 **Restoration Reserve process?**

9 A31. No, AES Indiana is not proposing to make any process changes to the Major Storm Damage
10 Restoration Reserve. However, AES Indiana witness Aliff discusses the proposed
11 adjustments to the Major Storm Damage Restoration Reserve.³

12 **7. SUMMARY AND RECOMMENDATIONS**

13 **Q32. Please summarize your testimony and recommendations.**

14 A32. My testimony presents the current Plant In-Service for AES Indiana and describes the
15 Company's transmission system and how it is interconnected with other utilities in Indiana.
16 I explain why a five-month average for transmission and distribution inventory is
17 representative of going forward costs because of recent inflation and supply chain issues
18 and the difficulty in obtaining material in a timely manner. Inventory levels have been
19 increased to ensure that material is available when needed to meet customer expectations
20 and deadlines for customer driven projects. The Company has had to order material further
21 in advance than in the past resulting in higher inventory levels and higher inventory costs.

³ AES Indiana witness Aliff, Direct Testimony, Q/A 25-27.

1 Moving the cost of poles into inventory in August of 2022 also resulted in a significant
2 increase in inventory value.

3 I also explain MTEP costs that the Company is obligated to pay as a member of MISO and
4 how those costs are handled. Additionally, I explain that the non-fuel MISO costs should
5 continue to be recovered through the RTO Rider.

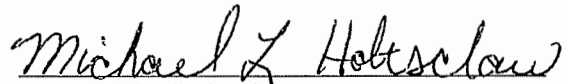
6 In addition, I discuss storm expenses and the number of declared storm events in the 2022
7 test year and how they compare to declared storm events in the past. I also explain why a
8 three-year average is representative of storm events going forward. I also discuss the Major
9 Storm Damage Restoration Reserve and explain that the Company is not proposing any
10 changes to the Major Storm Damage Restoration Reserve process.

11 **Q33. Does this conclude your verified pre-filed direct testimony?**

12 A33. Yes.

VERIFICATION

I, Michael L. Holtsclaw, Director of Transmission Field Operations for AES Indiana, affirm under penalties for perjury that the foregoing representations are true to the best of my knowledge, information, and belief.



Michael L. Holtsclaw

Dated: June 28, 2023

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT)
COMPANY D/B/A AES INDIANA (“AES INDIANA”) FOR)
AUTHORITY TO INCREASE RATES AND CHARGES FOR)
ELECTRIC UTILITY SERVICE, AND FOR APPROVAL OF)
RELATED RELIEF, INCLUDING (1) REVISED)
DEPRECIATION RATES, (2) ACCOUNTING RELIEF,)
INCLUDING DEFERRALS AND AMORTIZATIONS, (3))
INCLUSION OF CAPITAL INVESTMENTS, (4) RATE)
ADJUSTMENT MECHANISM PROPOSALS, INCLUDING)
NEW ECONOMIC DEVELOPMENT RIDER, (5) REMOTE)
DISCONNECT/RECONNECT PROCESS, AND (6) NEW)
SCHEDULES OF RATES, RULES AND REGULATIONS FOR)
SERVICE.)

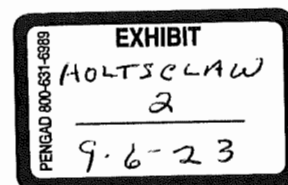
CAUSE NO. 45911

INDIANAPOLIS POWER & LIGHT COMPANY D/B/A AES INDIANA’S
OBJECTIONS AND RESPONSES TO THE
INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR’S
TENTH SET OF DATA REQUESTS TO AES INDIANA

Indianapolis Power & Light Company d/b/a AES Indiana (“AES Indiana” or “Petitioner”), pursuant to 170 IAC 1-1.1-16 and the discovery provisions of Rules 26 through 37 of the Indiana Rules of Trial Procedure, by its counsel, hereby submits the following Objections and Responses to the Indiana Office of Utility Consumer Counselor’s Tenth Set of Data Requests to AES Indiana (“Requests”).

General Objections

1. The responses provided to the Requests have been prepared pursuant to a reasonable and diligent investigation and search conducted in connection with the Requests in those areas where information is expected to be found. To the extent the Requests (including Instruction B) purport to require more than a reasonable and diligent investigation and search, Petitioner objects on grounds that they include an undue burden and unreasonable expense.



2. Petitioner objects to the Requests (including Instructions B and C) to the extent they seek documents or information which are not relevant to the subject matter of this proceeding and which are not reasonably calculated to lead to the discovery of admissible evidence.

3. Petitioner objects to the Requests (including Instruction A) to the extent they seek responses and information from individuals and entities who are not parties to this proceeding and to the extent they request the production of information and documents not presently in AES Indiana's possession, custody or control.

4. Petitioner objects to the Requests to the extent the Requests seek information outside the scope of this proceeding, and as such, the Requests seek information not reasonably calculated to lead to the discovery of relevant or admissible evidence.

5. Petitioner objects to the Requests to the extent they seek an analysis, calculation, or compilation which has not already been performed and which Petitioner objects to performing.

6. Petitioner objects to the Requests to the extent they are vague and ambiguous and provide no basis from which Petitioner can determine what information is sought.

7. Petitioner assumes no obligation to supplement these responses except to the extent required by Ind. Tr. R. 26(E) and objects to the extent the Instructions and/or Requests (including Instructions F and G) purport to impose any greater obligation.

8. Petitioner objects to the Requests to the extent they seek information that is subject to the attorney-client, work product, settlement negotiation or other applicable privileges.

9. Petitioner objects to the Requests to the extent they seek information that is confidential, proprietary, competitively sensitive and/or trade secret.

10. The responses constitute the corporate responses of Petitioner and contain information gathered from a variety of sources. Petitioner objects to the Requests (including Instruction D) to the extent they request identification of and personal information about all persons who participated in responding to each data request on the grounds that they are overbroad and unreasonably burdensome given the nature and scope of the requests and the many people who may be consulted about them.

11. Petitioner objects to the Requests to the extent the discovery sought is unreasonably cumulative or duplicative, or is obtainable from some other source that is more convenient, less burdensome, or less expensive.

12. Petitioner objects to the Requests to the extent the burden or expense of the proposed discovery outweighs its likely benefit, taking into account the needs of the case, the amount in controversy, the parties' resources, the importance of the issues at stake in litigation, and the importance of the proposed discovery in resolving the issues.

13. Petitioner objects to the Requests to the extent they solicit copies of voluminous documents.

14. Petitioner objects to the Requests (including Instruction D) to the extent they request identification of witnesses who will be prepared to testify concerning the matters contained in each response on the grounds that the Petitioner is under no obligation to call witnesses to respond to questions about information provided in discovery.

Subject to and without waiver of the general and specific objections set forth herein,
Petitioner responds to the Requests in the manner set forth below.

Dated this 28th day of August, 2023.

As to objections,



Teresa Morton Nyhart (No. 14044-49)
T. Joseph Wendt (No. 19622-49)
Jeffrey M. Peabody (No. 28000-53)
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Attorneys for
INDIANAPOLIS POWER & LIGHT COMPANY
D/B/A AES INDIANA

Data Request OUCC DR 10 - 1

Please provide, by year, the number of line miles, broken out by distribution and transmission, that AES Indiana has cleared through the vegetation management process for each calendar year ending 2017 through 2022 and the January 1, 2023 through June 30, 2023 period.

Objection:

AES Indiana objects to the request on the grounds and to the extent the request seeks an analysis, study, compilation, or calculation that AES Indiana has not performed and to which AES Indiana objects to performing. AES Indiana objects to the request on the grounds and to the extent the request exceeds the scope of this proceeding, particularly to the extent the request seeks information that is outside the historical period, test year, and adjustment period for this proceeding. AES Indiana further objects to the request on the ground and to the extent the request seeks information that is confidential, proprietary, competitively sensitive, and/or trade secret. Subject to and without waiver of the foregoing objection, AES Indiana provides the following response.

Response:

AES Indiana does not separately track vegetation management for transmission lines less than 200kV. The maintenance on these lines is performed at the same time the distribution maintenance is performed on the circuit. However, transmission lines greater than 200kV are managed in accordance with AES Indiana’s Transmission Vegetation Management Plan (TVMP).

Listed below is the number of line miles, per year, where vegetation management was performed on distribution lines and the transmission lines greater than 200kV. See also AES Indiana witness Bocook direct testimony Q/A 16 on pages 5-6 for distribution system vegetation management cost increases.

DISTRIBUTION		
YEAR	MILES	TRIM SPEC
2018	604	Box Trim
2019	776	Box Trim
2020	818	Box Trim
2021	512	Box Trim
2022	384	Box Trim
2022	237	Overhang Removal
2023 (Jan.-June)	130	Overhang Removal

TRANSMISSION >200kV	
YEAR	MILES
2018	149
2019	60
2020	104
2021	167
2022	59
2023 (Jan.-June)	0

Data Request OUCC DR 10 - 2

Please provide the vegetation management budget for the January 1, 2023 through June 30, 2023 period.

Objection:

Response:

AES Indiana's 2023 budget for transmission & distribution vegetation is \$18.7 million. The budget for the period January 1, 2023 through June 30, 2023 is \$9.35 million.

Data Request OUCC DR 10 - 3

Please provide the actual amount spent on vegetation management, broken out by storm expenditures and non-storm expenditures, for the January 1, 2023 through June 30, 2023 period.

Objection:

Response:

The actual amount spent on vegetation management for the period January 1, 2023 through June 30, 2023 broken out by storm and non-storm expenditures is:

- Storm Vegetation Management \$1,135,316
- Non-Storm Vegetation Management \$8,765,710

Data Request OUCC DR 10 - 4

Please describe AES Indiana's methodology for prioritizing vegetation management, including:

- a. Budgeting and spending;
- b. Decisions on which areas to target;
- c. Any metrics or factors that are considered/utilized; and,
- d. Names and titles of persons responsible for vegetation management planning and implementation.

Objection:

Response:

- a. The vegetation management budget is comprised of funding that is approved in the current rates and any additional funds provided by AES. Upon final approval of the annual budget, the vegetation management department incrementally assigns circuits that are scheduled for trimming in that particular year or quarter. The actual costs of contractor labor to perform maintenance on the assigned circuits are then continuously monitored, and adjustments are made when necessary.
- b. Decisions on what areas or circuits to trim currently consider the following:
 - a. AI Tool, which is a predictive/reliability analytics model.
 - b. Circuit Reliability Data.
 - c. T&D Operation's input.
- c. The following metrics or factors are considered to determine the vegetation management of each circuit.
 - a. Number of customers.
 - b. Line segment length.
 - c. Date last trimmed.
 - d. Outage data.
 - e. Weather data.
- d. The vegetation management department, under the direction of Chad Bocoock, is responsible for planning and implementation.

Data Request OUCC DR 10 - 5

Please provide the storm level classification of the weather event that occurred on July 29, 2023 and affected AES Indiana.

Objection:

Response:

The July 29, 2023 storm was classified as a Level 2 storm.

TDSIC

Data Request OUCC DR 10 - 6

Please provide the detailed procedures, processes, and protocols that AES Indiana has in place when asking or receiving offers for mutual assistance from other utilities.

Objection:

Response:

AES Indiana is a member of two different mutual assistance groups. The primary mutual assistance group is the Great Lakes Mutual Assistance group, whose member companies are the closest to Indiana. The secondary mutual assistance group is the Midwest Mutual Assistance group, whose member companies are further away. The process for requesting mutual assistance is the same for both groups.

- A member company needing assistance determines the number of line resources and type that are needed and then contacts the Mutual Assistance Coordinator for the group.
- The Mutual Assistance Coordinator then sends out a message to the member companies letting them know another member has requested assistance and some details on the type of damage, type of crews needed, and the number of customers impacted.
- There is a software tool that the companies enter the number and type of resources they can make available. The companies may offer up their own utility crews and/or they may offer contractor crews that are working for them.
- The software tool matches the requests to the resources that have been made available considering the geographic location of the requesting company and where the available resources are located.
- There is a conference call to discuss the request and the results from the tool. It's then up to the requesting company to decide if they want to accept the resources that have been allocated to them.
- If the requesting company accepts the allocation, they then work with the company offering the help to work out the final details on when the crews can start traveling, provide list of crew members, and where they are to report to for on-boarding.
- If utility crews are being offered, they work pursuant to the Edison Electric Institute Master Agreement that the members of the mutual assistance groups have already executed. If contractor crews are offered, then it may be necessary to execute a Storm Contract to cover the restoration work.

Data Request OUCC DR 10 - 7

Please provide the detailed procedures, processes, and protocols that AES Indiana has in place when hiring third party contractors to assist in the restoration process following a storm event.

Objection:

Response:

AES Indiana will first approach contractors that are already on property under contract to see if there are any available crews that could be released to assist AES Indiana that are not already working for another utility that is a member of a mutual assistance group. Many times, the contractors can provide crews that are working for REMC's or municipals after receiving approval to release the crews to assist elsewhere. If there are contractor crews that are working for a utility that is a member of a mutual assistance group, then those crews will get offered up through the mutual assistance group process described in the response to OUCC DR 10-6.

Data Request OUCC DR 10 - 8

When were AES Indiana's storm response procedures most recently updated? Have these procedures been updated or modified following the June 29, 2023 and July 29, 2023 weather events? If so, please provide a copy. Please identify, by name and title, any AES Indiana management employees responsible for overseeing major outage events and related responses.

Objection:

Response:

The AES Indiana Emergency Response Plan was completely revised in 2007. Since then, the plan is reviewed each year and updated as needed. The plan has not been updated as a result of the June 29th storm or the July 29th storm. AES Indiana is still in the process of working on the after-action reviews of the restoration effort. Based on these after-action reviews the plan may be updated.

The lead Incident Commanders who are responsible for managing storm and outage events under the Emergency Response Plan are:

Roderick Conwell	Senior Director, Indiana T&D Operations
Mike Holtsclaw	Director, Power Delivery Operations
David Baldwin	Director, T&D Field Operations
Barry Feldman	Director, T&D Metering & Operations Technology

Indianapolis Power & Light Company
d/b/a AES Indiana
Cause No. 45911
AES Indiana Responses to OUCC DR Set 10

Data Request OUCC DR 10 - 9

Please identify any mutual assistance agreements or programs in which AES Indiana is a member or affiliate.

Objection:

Response:

AES Indiana is a member of the Great Lakes Mutual Assistance Group and the Midwest Mutual Assistance group. Please see the Company's response to OUCC DR 10-6 for additional information regarding the mutual assistance process.

Indianapolis Power & Light Company
d/b/a AES Indiana
Cause No. 45911
AES Indiana Responses to OUCC DR Set 10

Data Request OUCC DR 10 - 11

Please provide the dates and times upon which AES Indiana received any offers for assistance from any non-AES Indiana personnel, or any other entity outside AES Indiana for outage recovery from June 27, 2023 through August 15, 2023. Please identify whether any Indiana-based entities offered to assist AES Indiana with restoration efforts during this time period. Please identify names and titles of persons responsible for determining whether to accept such offers.

Objection:

Response:

No unsolicited offers for help were received during the time period in question. No offers of assistance from Indiana based entities were received.

Randall C. Helmen
Chief Deputy Consumer Counselor
OFFICE OF UTILITY CONSUMER COUNSELOR
115 West Washington Street, Suite 1500 South
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rhelmen@oucc.in.gov

*Cause No.
45911*

NOTICE OF DEPOSITION FILING

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT)
COMPANY D/B/A AES INDIANA ("AES INDIANA") FOR)
AUTHORITY TO INCREASE RATES AND CHARGES FOR)
ELECTRIC UTILITY SERVICE, AND FOR APPROVAL)
OF RELATED RELIEF, INCLUDING (1) REVISED)
DEPRECIATION RATES, (2) ACCOUNTING RELIEF,)
INCLUDING DEFERRALS AND AMORTIZATIONS, (3))
INCLUSION OF CAPITAL INVESTMENTS, (4) RATE)
ADJUSTMENT MECHANISM PROPOSALS, INCLUDING)
NEW ECONOMIC DEVELOPMENT RIDER, (5) REMOTE)
DISCONNECT/RECONNECT PROCESS, AND (6) NEW)
SCHEDULES OF RATES, RULES AND REGULATIONS)
FOR SERVICE.)

In compliance with the Indiana Rules of Procedure, Rules of the Industrial Board or Federal Rules of Procedure, pursuant to Indiana Supreme Court Order dated 10/1/86, you are hereby notified of the filing with counsel for the OUC of the deposition of MICHAEL HOLTSCLOW, taken on September 6, 2023.

10.4.23

Date Returned to Circle City Reporting

cc: T. Joseph Wendt

CIRCLE CITY REPORTING
135 North Pennsylvania, Suite 1720
Indianapolis, IN 46204
(317) 635-7857

AFFIRMATION

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



Michael D. Eckert
Director, Electric Division

Cause No. 45911
AES Indiana

October 12, 2023

Date

CERTIFICATE OF SERVICE

This is to certify that a copy of the *Indiana Office of Utility Consumer Counselor's* *Testimony of Michael D. Eckert* has been served upon the following parties of record in the captioned proceeding by electronic service on October 12, 2023.

Petitioner

Teresa Morton Nyhart
T. Joseph Wendt
Jeffrey M. Peabody
Lauren Aguilar
Janet Nichols

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