FILED
December 19, 2024
INDIANA UTILITY
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANAPOLIS) POWER & LIGHT COMPANY D/B/A AES INDIANA ("AES INDIANA") FOR (1) ISSUANCE TO AES INDIANA OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE ACQUISITION AND DEVELOPMENT BY A WHOLLY OWNED AES INDIANA SUBSIDIARY OF A SOLAR POWER GENERATING FACILITY AND BATTERY ENERGY STORAGE SYSTEM PROJECT TO BE KNOWN AS THE CROSSVINE PROJECT ("THE CROSSVINE PROJECT"); (2) APPROVAL OF THE CROSSVINE PROJECT, INCLUDING A JOINT VENTURE STRUCTURE BETWEEN AN AES INDIANA SUBSIDIARY AND ONE OR MORE TAX EQUITY PARTNERS AND A CONTRACT FOR DIFFERENCES BETWEEN AES INDIANA AND THE PROJECT COMPANY THAT HOLDS AND **OPERATES** THE GENERATION AND STORAGE ASSETS, AS A CLEAN ENERGY PROJECT AND ASSOCIATED TIMELY COST RECOVERY UNDER IND. CODE § 8-1-8.8-11; (3) APPROVAL OF ACCOUNTING AND RATEMAKING **FOR** THE CROSSVINE PROJECT, INCLUDING AN ALTERNATIVE REGULATORY PLAN UNDER IND. CODE § 8-1-**FACILITATE** TO AES **INDIANA'S** INVESTMENT IN THE CROSSVINE PROJECT THROUGH A JOINT VENTURE; AND (4) TO THE EXTENT NECESSARY, ISSUANCE OF AN ORDER PURSUANT TO IND. CODE § 8-1-2.5-5 DECLINING TO EXERCISE JURISDICTION OVER THE JOINT VENTURE, INCLUDING THE PROJECT COMPANY, AS A PUBLIC UTILITY.

OFFICIAL EXHIBITS

IURC PETITIONER'S

DATE REPORT

CAUSE NO. 46113

SUBMISSION OF REBUTTAL TESTIMONY OF GARRETT SHERWOOD

Petitioner Indianapolis Power & Light Company d/b/a AES Indiana ("Petitioner" or "AES Indiana"), by counsel, hereby submits the rebuttal testimony of Garrett Sherwood.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served this 19th day of December, 2024, by email transmission, hand delivery or United States Mail, first class, postage prepaid to:

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D/B/A AES INDIANA

VERIFIED REBUTTAL TESTIMONY

OF

GARRETT SHERWOOD

ON BEHALF OF

INDIANAPOLIS POWER & LIGHT COMPANY

D/B/A AES INDIANA

CAUSE NO. 46113

VERIFIED REBUTTAL TESTIMONY OF GARRETT SHERWOOD ON BEHALF OF AES INDIANA

1. <u>INTRODUCTION</u>

1	Q1.	Please state your name, employer and business address.
2	A1.	My name is Garrett Sherwood. I am employed by AES US Services, LLC ("AES
3		Services", also "Service Company"), which is the service company that serves
4		Indianapolis Power & Light Company d/b/a AES Indiana ("AES Indiana", "IPL", or "the
5		Company"). The Service Company is located at One Monument Circle, Indianapolis,
6		Indiana 46204.
7	Q2.	What is your position with AES Indiana?
8	A2.	I am the Renewable Energy Manager for AES Indiana.
9	Q3.	Are you the same Garrett Sherwood who previously submitted direct testimony in
10		this Cause?
11	A3.	Yes.
12	Q4.	Please summarize your overall responsibilities as a Renewable Energy Manager.
13	A4.	As further described in my Direct Testimony (Q/A 2), I am responsible for the operations
14		of the AES Indiana Renewables portfolio. I manage the day-to-day operations of the
15		renewable fleet and oversee the turnover of newly constructed renewable projects to the
16		operational fleet.

Q5. What is the purpose of your rebuttal testimony in this proceeding?

	of Utility Consumer Counselor ("OUCC") witnesses Brittany L. Baker and Roopali
	Sanka. More specifically, I address the reporting requirements proposed by OUCC
	witness Sanka. 1
Q6.	Are you sponsoring any attachments?
A6.	No.
Q7.	Did you submit any workpapers?
A7.	No.
	2. OUCC's RECOMMENDATIONS
Q8.	Please summarize the OUCC's recommendations.
A8.	The OUCC recommends the following four categories of reporting:
	1. Category 1: The OUCC recommends that AES Indiana file a report when Project
	construction commences under the joint venture entity and subsequent semi-
	annual progress reports on the status of construction including:
	a. Progress in securing Joint Venture Tax Equity Partner(s) ("TEPs"), TEP rate of return requirements, flip point expectations and contract for differences;
	of return requirements, flip point expectations and contract for differences;
	of return requirements, flip point expectations and contract for differences; b. Revisions to the cost estimates; c. Milestone status including major supplier/contractor agreements, and
•	A6. Q7. A7.

 $^{^{1}}$ Absence of a response to every issue raised in the OUCC's testimony does not mean I agree with the OUCC on those issues.

1 2			f. MISO interconnection agreement execution and completion of transmission upgrades ²
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4		2.	Category 2: The OUCC recommends that AES Indiana file a final report when
5			the Project is in commercial operation, including but not limited to, an assessment
6			of the expected performance vs. final performance of the Battery Energy Storage
7			System ("BESS") and solar installation to include installed capacity, MISO
8			accredited capacity, and review of complications.3
9		3.	Category 3: The OUCC recommends that AES Indiana annually report the
10			degradation of the BESS over time, quantified as a percentage loss in capacity per
11			year. ⁴
12		4.	Category 4: The OUCC recommends that AES Indiana report on cost forecasting,
13			including estimated costs for future augmentation, considering the replacement or
14			addition of battery capacity and any necessary changes to the power conversion
15			system. ⁵
16			3. RESPONSE TO OUCC
17	Q9.	What	is your overall response to the OUCC's recommended reporting?
18	A9.	AES]	Indiana appreciates the OUCC's position that it does "not oppose AES Indiana's
19		overal	l request, contingent upon Commission approval of OUCC witness Roopali
20		Sanka	's recommendations." However, the OUCC witness Sanka's reporting

recommendations raise a few concerns. As a general matter, AES Indiana is already

OUCC witness Sanka Direct Testimony page 19 lines 16-21 and page 20 line 1-7.
 OUCC witness Sanka Direct Testimony page 20 lines 8-11.

⁴ *Id.* at lines 12-13.

⁵ *Id.* at lines 14-16.

⁶ OUCC witness Baker Direct Testimony page 13 lines 19-20.

subject to numerous reporting requirements. New requirements that overlap existing reporting requirements are unnecessarily burdensome. It is also important that any additional requirements be clear, and any information reported be subject to the protection of confidential information. In addition, the value of any additional reporting requirements should balance the cost to the Company of compiling the information and the associated need for the Commission to devote resources to review the reported information. Finally, as described below, any additional reporting requirements should be addressed to the purpose of the pending proceeding and any such requirements should conclude within a reasonable period.

This pending case is addressed to the construction of the proposed Crossvine Project.

Any reporting should focus on this purpose and terminate within a reasonable period of the Project being placed into commercial operation. If the Commission desires additional information during the ongoing operation of the Project, the Commission can exercise its statutory authority to request such information.

That being said, to mitigate controversy under the circumstance of this proceeding, the Company is amenable to accepting the OUCC reporting requirements as clarified and modified below. These revisions better balance the concerns mentioned above.

- Q10. Please respond to the OUCC's proposal for Category 1, which would require AES

 Indiana to report when Project construction commences under the joint venture
 entity and subsequent semi-annual progress reports on the status of construction.
- A10. AES Indiana agrees to include the Category 1 reporting requirements proposed by OUCC witness Sanka and listed above with the clarification that the Company proposes the

initial report be filed within 90 days after a Commission order approving the relief sought by AES Indiana in this proceeding. A firm date for the initial report facilitates the administration of this reporting requirement. Also, with respect to Category 1, item f above, AES Indiana notes that the MISO Generator Interconnection Agreements ("GIA") for this Project have been executed.⁷ As also stated by Company witness Fields, the Crossvine Project has not been assigned ERIS or NRIS deliverability-related network upgrades in the most recent version of the MISO system impact study. I point this out to clarify that additional information is not expected for this particular item of the report.

Q11. Please respond to the OUCC's proposal for Category 2, which would require a final report as to when the Project is in commercial operation, including but not limited to, an assessment of the expected performance vs. final performance of the BESS and solar installation to include installed capacity, MISO accredited capacity, and review of complications.

A11. As an initial matter, this proposed requirement is vague. AES Indiana is willing to provide a final report but proposes to modify this requirement to clarify what is required and to reasonably match the requirement to information that will be available at commercial operation.

AES Indiana proposes that the final report be provided when the Commercial Operations

Date ("COD") is reached. AES Indiana will provide the results of the capacity test and
performance test, in which the final performance and capacity values are compared to
expected values under the construction agreement. Due to the nature of the resource

⁷ See Company witness Fields Direct Testimony, QA 10. Mr. Fields' direct testimony indicated the final GIA would be executed no later than October 2024. This event occurred October 15, 2024.

1	accreditation process at MISO, which derives accreditation values from at least one
2	year's worth of operating history, AES Indiana will not be able to provide MISO
3	accredited capacity information in this final report. Instead, the relevant class average can
4	be provided in the final report.8 The results of the capacity test and class average values
5	will be the basis used to determine the MISO accredited capacity value for the first year
6	of operations. If the Commission desires additional information on this subject it could
7	solicit it during the ongoing operation of the Project.
8	Thus, to summarize, the OUCC recommendation for the final report (Category 2 above)
9	should be replaced with the following:
10	A final report when the Project has reached COD. This report will contain

Q12. Please respond to Category 3 of the OUCC's proposal that AES Indiana annually report the degradation of the BESS over time, quantified as a percentage loss in capacity per year.9

the results of the capacity test and performance test, in which the final

performance and capacity values are compared to expected values under the

construction agreement, as well as the relevant class average information.

A12. The OUCC's Category 3 recommendation is unnecessary. The impact of degradation and augmentation events on the capacity value of the BESS will be reflected in the annual report that AES Indiana is required to file with the Commission pursuant to Ind. Code § 8-1-8.5-13(l) (i.e., HEA 1520 Report). AES Indiana's response to OUCC DR 1-11 and OUCC DR 1-11 Confidential Attachment 1 addresses augmentation of the BESS

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⁸ As defined and applied in MISO Business Practice Manual BPM-011 (Resource Adequacy) and MISO tariff Schedule 53/53A

⁹ OUCC witness Sanka Direct Testimony page 20 lines 12-13.

and its timing. ¹⁰ While the Company understands the OUCC's desire to remain apprised
of the operations of the Project, an additional and indefinite project reporting requirement
is unnecessary and should not be adopted.
Rejection of the OUCC's Category 3 recommendation is consistent with the
Commission's refusal to order ongoing progress reports regarding battery augmentation
in Cause No. 45920 (Pike County BESS). In its January 17, 2024 Final Order in Cause
No. 45920, the Commission found "it is unnecessary to impose additional reporting
requirements urged by the OUCC" because the capacity value of that project would be
reflected in the annual report that AES Indiana is required to file with the Commission
pursuant to Ind. Code § 8-1-8.5-13(l).11 In reaching this decision the Commission noted
that it can solicit additional information during the ongoing operation of the project
should it become necessary to do so. ¹² This is also true here.
In this case, the Company has reasonably developed expected augmentation events for
Crossvine in the PVRR model that was used to inform the best estimate as discussed
OUCC DR 1-11 (Confidential Attachment RS 1-C). The best estimate of the Crossvine
Project was not opposed by the OUCC in this case. The impact of degradation and
augmentation events on the capacity value of the BESS will be reflected in the annual
report that AES Indiana is required to file with the Commission pursuant to Ind. Code §
8-1-8.5-13(l) (i.e., HEA 1520 Report). Should the Commission require additional
information it has authority to solicit it.

¹⁰ OUCC Attachment RS-1 p. 5 and Confidential Attachment RS 1-C respectively Cause No. 45920 Order p. 22. 12 Id.

Therefore, the OUCC's proposed reporting Category 3, which would impose requirements beyond COD indefinitely and which would duplicate other ongoing reporting, should not be adopted.

Q13. Please respond to Category 4, the OUCC's proposal to require that AES Indiana report on cost forecasting, including estimated costs for future augmentation, considering the replacement or addition of battery capacity and any necessary changes to the power conversion system.¹³

As an initial matter, the phrase "cost forecasting, including" is broad and undefined. Any ongoing reporting requirements should clearly identify what the Company is required to do. Furthermore, the OUCC does not explain why this ongoing operational information is needed, and the absence of a sunset date does not reasonably balance costs of reporting versus the need and benefit. As noted above, the Commission has statutory authority to request additional information during the course of operations. The OUCC also has the ability to obtain information through discovery and informal means, such as tech to tech meetings with the Company.

The OUCC's proposal specifically addresses only augmentation cost. While many factors will affect the precise timing of the augmentation events, the first event is expected to occur within two to five years after COD. The estimated cost of this event will not be available until approximately one year before it is scheduled to occur. As stated above, the OUCC's proposed reporting requirement goes beyond the construction of the project and extends indefinitely into ongoing operations.

A13.

¹³ OUCC witness Sanka Direct Testimony page 20 lines 14-16.

To mitigate controversy, the Company proposes the OUCC's Category 4 reporting be			
modified. The Company proposes to include forecasted augmentation costs with the final			
report. Additionally, one year before the first expected augmentation event, the			
Company will provide an update on the augmentation which will include the forecasted			
augmentation costs. One year after the first augmentation, the Company will provide an			
update which will state the actual costs of the first augmentation of the BESS.			

All reporting and updates will be subject to the protection of confidential information.

This approach will reasonably balance the value of the reports with the cost of complying with the reporting requirement.

Thus, to summarize, the OUCC's recommendation for the report on cost forecasting (Category 4 above) should be replaced with the following:

Augmentation Cost: Include estimated costs for future augmentation with the final report. One year before the first expected augmentation event, the Company will also provide an update on the augmentation which will include the forecasted augmentation costs. One year after the first augmentation, the Company will provide an update which will state the actual costs of the first augmentation of the BESS.

Q14. Please discuss the timing of the initial and subsequent reports and updates.

19 A14. The Company proposes to align the timing of the reporting addressed in this rebuttal
20 testimony with the ongoing reporting proposed in AES Indiana witness Aliff's direct
21 testimony.¹⁴ Witness Aliff proposed to submit semi-annual progress reports to the

¹⁴ See Aliff Direct Testimony page 24 lines 2-16.

Commission during construction, including any revisions to the cost estimates for the Project cost (subject to protection of confidential information). The Company proposed to start filing these reports 90 days after a Commission Order in this proceeding approving the Project, with semiannual progress reports thereafter. Witness Aliff also proposed to submit a final Project report containing: (a) the actual total cost of construction; (b) the total megawatt output for the Project; and (c) the actual in-service (commercial operation) date for the Project. To appropriately balance the cost with the need and benefit of the additional reporting presented in this rebuttal, the Company proposes the contents of the Category 1 report be combined with the progress report described by witness Aliff and be filed within 90 days after a Commission order approving the relief sought by the Company in this proceeding. Thereafter, the Company would file subsequent semi-annual progress reports. The Company proposes the contents of the Category 2 final report be combined with the final report described by witness Aliff and be filed in the final semi-annual report. Finally, the Company proposes the first Category 4 update be filed one year prior to the first expected augmentation of the BESS, and the second Category 4 update be filed one year after the first augmentation of the BESS. Unless directed otherwise by the Commission, each report would be submitted as a compliance filing under this docket subject to the protection of confidential information.

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Q15. Do you have any additional comments on the timing of a Commission decision in this proceeding?

A15. Yes, the Company has accepted the OUCC's reporting requirements as modified above to mitigate controversy. Project construction will commence after a Commission decision

- approving the relief sought by the Company. While the statutory deadline for a decision in this proceeding is April 30, 2025, an earlier decision would benefit the Project by allowing construction to commence sooner.
- 4 Q16. Please summarize your testimony, conclusions and recommendations.

- A16. AES Indiana proposes the OUCC's proposed semi-annual reporting requirements be reduced to three categories (Category 1, Category 2, and Category 4) as modified and summarized below:
 - 1. Category 1: AES Indiana will file a report on the status of the construction, including those items listed in QA 8 above. The initial report will be filed within 90 days after a Commission order approving the relief sought by AES Indiana in this proceeding. Subsequent reports will be filed semi-annually until the final report is filed.
 - 2. Category 2: AES Indiana will file a final report when the Project has reached its commercial operations date. This report will contain the results of the capacity test and performance test, in which the final performance and capacity values are compared to expected values under the construction agreement. The relevant class average information will also be provided in the final report.
 - 3. **Category 3:** Augmentation Cost: AES Indiana will include estimated costs for future augmentation with the final report required under Category 2. One year before the first expected augmentation event, the Company will also provide an update on the augmentation which will include the forecasted augmentation costs.

1		One year after the first augmentation, the Company will provide an update which
2		will state the actual costs of the first augmentation of the BESS.
3		Unless directed otherwise by the Commission, each report would be submitted as a
4		compliance filing under this docket subject to the protection of confidential information.
5		Therefore, I recommend the Commission approve the Project and associated accounting
6		and ratemaking relief sought by the Company together with the modified reporting
7		requirements presented above. Finally, I recommend the Commission enter an order
8		approving the relief sought by the Company as soon as practical.
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9	Q17.	Does that conclude your prepared verified rebuttal testimony?
10	A17.	Yes.

VERIFICATION

I, Garrett Sherwood, Renewable Energy Manager for AES US Services, LLC, affirm under penalties for perjury that the foregoing representations are true to the best of my knowledge, information, and belief.

Dated December 19, 2024

Garrett Sherwood