

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANAPOLIS )  
POWER & LIGHT COMPANY D/B/A AES )  
INDIANA (“AES INDIANA”) FOR (1) ISSUANCE )  
OF CERTIFICATE OF PUBLIC CONVENIENCE )  
AND NECESSITY TO REPOWER PETERSBURG )  
GENERATING UNITS 3 & 4 TO OPERATE ON )  
NATURAL GAS (“PETERSBURG REPOWERING )  
PROJECT”); (2) APPROVAL OF PETERSBURG )  
REPOWERING PROJECT AS A CLEAN ENERGY ) CAUSE NO. 46022  
PROJECT; AND (3) ASSOCIATED ACCOUNTING )  
AND RATEMAKING, INCLUDING RECOVERY )  
OF PROJECT COSTS, PROJECT )  
DEVELOPMENT COSTS, FGD DEWATERING )  
AND RELATED COSTS, THE REMAINING NET )  
BOOK VALUE OF PETERSBURG UNITS 3 AND 4 )  
RETIRED ASSETS, AND CERTAIN MATERIALS )  
AND SUPPLIES INVENTORY. )

**PETITIONER’S SUBMISSION OF DIRECT TESTIMONY OF  
G. AARON COOPER**

Indianapolis Power & Light Company d/b/a AES Indiana (“AES Indiana” or  
“Petitioner”), by counsel, hereby submits the direct testimony and attachment of G. Aaron  
Cooper.

Respectfully submitted,



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ATTORNEYS FOR PETITIONER

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a copy of the foregoing was served this 11th day of March, 2024, by email transmission, hand delivery or United States Mail, first class, postage prepaid to:

Indiana Office of Utility Consumer Counselor  
PNC Center  
115 West Washington Street, Suite 1500 South  
Indianapolis, Indiana 46204  
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**VERIFIED DIRECT TESTIMONY**  
**OF**  
**G. AARON COOPER**  
**ON BEHALF OF**  
**INDIANAPOLIS POWER & LIGHT COMPANY**  
**D/B/A AES INDIANA**

**SPONSORING AES INDIANA ATTACHMENT GAC-1**

**VERIFIED DIRECT TESTIMONY OF G. AARON COOPER  
ON BEHALF OF AES INDIANA**

**1. INTRODUCTION**

1

2 **Q1. Please state your name, employer, and business address.**

3 A1. My name is G. Aaron Cooper. I am employed by AES US Services, LLC, (“AES Services”,  
4 also “Service Company”), which is the service company that serves Indianapolis Power &  
5 Light Company d/b/a AES Indiana (“AES Indiana”, “IPL”, or “the Company”). The  
6 Service Company is located at One Monument Circle, Indianapolis, Indiana 46204.

7 **Q2. What is your position with AES Indiana?**

8 A2. I am Chief Commercial Officer, US Utilities.

9 **Q3. Please describe your duties as Chief Commercial Officer, AES US Utilities.**

10 A3. In my current position, I am responsible for commercial strategy for US Utilities, AES  
11 Indiana and AES Ohio, and my responsibilities include managing and directing the  
12 commercial operations and resource planning departments of AES Indiana (“AES  
13 Indiana”).

14 **Q4. Please summarize your education and professional qualifications.**

15 A4. I received a Bachelor of Science degree, summa cum laude, from Miami University in  
16 1991. I have over 30 years of utility experience ranging from T&D Operations to  
17 Regulatory Operations, and extensive Commercial Operations experience.

18 **Q5. Please summarize your prior work experience.**

19 A5. I assumed the role of Chief Commercial Officer, US Utilities, in January 2021. Most  
20 recently I was Director, Regulatory and Financial Activities - T&D Investments, for AES

1 US Services, LLC. For over a decade, I was the Director of Fuel Supply in Commercial  
2 Operations, first for the Dayton Power & Light Company (“DP&L”) generating assets  
3 located in Ohio and subsequently for all non-IPL, AES-owned solid fuel generating stations  
4 in the US, where I was responsible for fuel planning and procurement, logistics and  
5 contract administration. I previously worked in DP&L’s Regulatory Operations as  
6 Manager of Retail Pricing, as a Manager and Account Manager in DPL Inc.’s unregulated  
7 retail electric service subsidiary DPL Energy Resources, and in the DP&L distribution  
8 business in major customer account management and supervision of various operational  
9 functions including electric construction, field service and meter reading.

10 **Q6. Have you testified previously before the Indiana Utility Regulatory Commission**  
11 **(“Commission” or “IURC”) or any other regulatory agency?**

12 A6. Yes. I provided testimony in AES Indiana’s CPCN filing in IURC Cause Nos. 45493 and  
13 45493-S1 (Hardy Hills Solar), 45591 and 45832 (Petersburg Energy Center), Cause No.  
14 45920 (Pike County BESS), and Cause No. 45931 (Hoosier Wind). I also testified in Cause  
15 No. 45744 (HEA 1520). In Ohio, I have provided testimony supporting DP&L’s Fuel  
16 Adjustment Clause before the Public Utilities Commission of Ohio in Case No. 11-5730-  
17 EL-FAC and Case No. 12-2881-EL-FAC.

18 **Q7. Are you familiar with AES Indiana’s petition in the proceeding and the relief that it**  
19 **seeks?**

20 A7. Yes.

21 **Q8. What is the purpose of your testimony in this proceeding?**

1 A8. The purpose of my testimony is to discuss Midcontinent Independent Service Operator  
2 (“MISO”) issues pertaining to the Petersburg Repowering Project and describe how natural  
3 gas will be supplied to Petersburg Units 3 and 4.

4 **Q9. Are you sponsoring any attachments?**

5 A9. Yes. I am sponsoring the following attachment(s):

<u>AES Indiana Attachment GAC-1</u>	IURC GAO 2022-01 Regional Transmission Organization information
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6 **Q10. Did you submit any workpapers?**

7 A10. No.

8 **Q11. Were these exhibits, attachments, or workpapers, or portions thereof, that you are**  
9 **sponsoring or co-sponsoring prepared or assembled by you or under your direction**  
10 **and supervision?**

11 A11. Yes.

12 **2. PETERSBURG UNITS 3 AND 4 PARTICIPATION IN MISO**

13 **Q12. How would the repowering of Petersburg Units 3 and 4 impact their participation in**  
14 **MISO?**

15 A12. MISO will be notified of the changes through the outage schedule as well as changes to the  
16 MISO Commercial Model. AES Indiana will remain in contact with MISO staff about the  
17 process and any capacity accreditation changes from the repowering. Please see AES  
18 Indiana witness Miller’s testimony (Q/A 33) for a description of the expected capacity

1 accreditation of Petersburg Units 3 and 4 following their repowering to operate using  
2 natural gas.

3 **Q13. How would AES Indiana offer Petersburg Units 3 and 4 into the MISO market**  
4 **following their conversion?**

5 A13. Following the conversion, the dispatch will be driven by natural gas prices rather than coal  
6 prices. Offer parameters impacted by the conversion, including reduced startup costs, any  
7 changes to heat rate curves and variable operations and maintenance costs, will be updated.

8 **Q14. How will MISO treat the conversion with respect to the established generator**  
9 **interconnection process?**

10 A14. MISO provides a framework to evaluate such a change because they recognize that fuel  
11 conversions do not categorically cause transmission system reliability issues, often since  
12 the performance of the generator is not impacted. Since the Petersburg repowering is not  
13 expected to have material or adverse impact to the transmission system, it will be  
14 considered by MISO to have *de minimis* impact. AES Indiana will develop and submit a  
15 study demonstrating the *de minimis* impact of the planned change in accordance with the  
16 requirements of section 6.7.1 of MISO Business Practice Manual 15. AES Indiana has  
17 discussed the conversion with MISO staff and has not been directed to perform any further



1 studies at this time. No transmission system upgrades or related studies, such as those  
2 performed for new interconnections, are required.

3 **3. SOURCE OF FUEL FOR CONVERTED PETERSBURG UNITS 3 AND 4**

4 **Q15. Please summarize how natural gas will be supplied to Petersburg Units 3 and 4.**

5 A15. Natural gas will be supplied via the Midwestern Gas Transmission (“MGT”) pipeline,  
6 which is an interstate pipeline that runs across the Petersburg property. AES Indiana has  
7 worked with MGT to ensure firm service for a maximum burn day.

8 **Q16. What natural gas sources would be available from the potential interstate pipelines  
9 that Petersburg Units 3 and 4 could connect to?**

10 A16. MGT is an interstate pipeline that runs from Tennessee to northern Illinois, Chicago area.  
11 It is directly connected to Rockies Express Pipeline (“REX”), Trunkline Gas, Texas Gas  
12 Transmission (“TGT”), and Tennessee Gas Pipeline, among others. The transportation that  
13 AES Indiana has contracted will allow for deliveries from Rockies Express Pipeline, Texas  
14 Gas Transmission, and Tennessee Gas Pipeline. AES Indiana already conducts business  
15 on many of these pipelines and has multiple suppliers with enough fuel to ensure adequate  
16 supply for Petersburg Generating Station.

17 **Q17. What were the selection criteria for selecting gas transportation and supply services?**

18 A17. There is one interstate pipeline that is directly located on Petersburg property, MGT, and  
19 another in the area that ends in the town of Petersburg, TGT. AES Indiana contacted both  
20 pipelines about potential service to Petersburg if a repowering on natural gas were to occur.  
21 For the MGT alternative, MGT could create a meter tap and lateral within Petersburg  
22 property and had nearly all of the needed firm transportation available on the pipeline

1 already. To reach the full amount needed, MGT would need to do a pipeline project to  
2 increase capacity.

3 For a TGT alternative, the lateral to connect Petersburg and the pipeline would be much  
4 longer (nearly 12 miles), and it would be located at the end of a lateral, not their mainline.  
5 This meant additional work, at a higher relative cost, would be needed in order to provide  
6 the volume of fuel supply Petersburg would require, and that did not include additional  
7 work needed on the mainline as that portion of the pipeline was already fully contracted.  
8 The additional work associated with a TGT pipeline option would also increase timing and  
9 execution risk due to the miles of pipeline to be installed and associated right of way to be  
10 obtained and necessary approvals.

11 **Q18. Are the FERC filed tariff rates a good indication of the transportation rates that**  
12 **would apply for Petersburg Units 3 and 4 from the pipelines mentioned above?**

13 A18. Yes, interstate pipelines fall under the jurisdiction of FERC and therefore the FERC filed  
14 tariff rates would be a good indication of the transportation rates that would apply for  
15 Petersburg Units 3 and 4.

16 **Q19. Have the costs of a lateral pipeline been included in the Project Best Estimate?**

17 A19. Yes. As described by AES Indiana witness Bigalbal in Q/A 39 of his direct testimony, the  
18 cost of the lateral pipeline is included in the Petersburg Repowering Project Best Estimate.

19 **Q20. How will AES Indiana recognize in the ratemaking process the cost of natural gas**  
20 **acquired to fuel Petersburg Units 3 and 4?**

21 A20. AES Indiana will include the cost incurred to transport and acquire natural gas to fuel  
22 Petersburg Units 3 and 4 through its fuel adjustment clause (“FAC”) filings so that this cost

1 is reflected in the ratemaking process. The natural gas will constitute the cost of fuel to  
2 generate electricity and will be treated like other fuel costs incurred by AES Indiana to  
3 operate its exiting generating fleet for purposes of the FAC. AES Indiana’s jurisdictional  
4 customers will pay rates that reflect the net difference of the fuel costs associated with the  
5 operation of Petersburg Units 3 and 4 less the locational marginal price (“LMP”) revenue  
6 from MISO associated with the units’ Commercial Pricing Nodes, so long as they are used  
7 to serve retail jurisdictional customers.

#### 8 **4. GAO 2022-01**

##### 9 **Q21. Are you familiar with the Commission’s GAO 2022-01?**

10 A21. Yes, this GAO provides guidance on certain RTO related information a utility should  
11 submit in certain proceedings, including petitions submitted pursuant to Ind. Code Ch. 8-  
12 1-8.5 that request a Certificate of Public Convenience and Necessity for new electric  
13 generation. AES Indiana does not believe GAO 2022-01 applies to the Project because the  
14 Project is not new electric generation. However, AES Indiana compiled relevant  
15 information requested in GAO 2022-01 in AES Indiana Attachment GAC-1 to facilitate  
16 Commission review of the Project.

#### 17 **5. CONCLUSION**

##### 18 **Q22. Please summarize your testimony and recommendations.**

19 A22. AES Indiana has and will follow all MISO processes and protocols regarding the  
20 Petersburg Repowering Project. AES Indiana will remain in contact with MISO staff about  
21 the process and any capacity accreditation changes related to the repowering.

1 To ensure fuel supply reliability for the Petersburg Repowering Project and corresponding  
2 generation supply for its customers, AES Indiana has secured firm transportation on the  
3 MGT pipeline equal to a maximum burn day. The repowered units will have same capacity  
4 attributes as the units on coal. Following the conversion, the dispatch will be driven by  
5 natural gas prices rather than coal prices and the offer parameters impacted by the  
6 conversion will be updated, including reduced startup costs, any changes to heat rate curves  
7 and variable operations and maintenance costs.

8 The Petersburg Repowering Project results in a reliable, cleaner, dispatchable resource to  
9 supply the energy needs of AES Indiana customers.

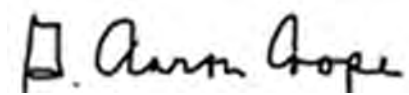
10 **Q23. Does that conclude your verified pre-filed direct testimony?**

11 A23. Yes.

## VERIFICATION

I, G. Aaron Cooper, AES US Services, LLC Chief Commercial Officer, US Utilities, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

Dated March 11, 2024

A handwritten signature in black ink that reads "G. Aaron Cooper". The signature is written in a cursive style with a clear, legible font.

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G. Aaron Cooper

**Petersburg Repowering Project GAO 2022-01 Regional Transmission Organization Information**

<b>GAO 2022-1 Requirement</b>	<b>Response</b>
<p>The name of the RTO to which the new generation will be connected and information regarding the RTO’s planning reserve margin, peaks, capacity auctions, possible ancillary services the new generation may provide, and other markets in which the new generation may participate. A qualitative assessment by the RTO regarding the new generation shall be requested and the RTO’s response (including, as applicable, the RTO’s affidavit or testimony) shall be part of the utility’s case in chief.</p>	<p>This Project is not new generation. As an existing resource, the Project is already connected to the MISO system with a documented operating history. MISO's 2023/2024 seasonal reserve margins and peaks, respectively, are listed below.<sup>1</sup></p> <ul style="list-style-type: none"> <li>• Summer: 7.4%, 119,924.1 MW</li> <li>• Fall: 14.9%, 105,907.1 MW</li> <li>• Winter: 25.5%, 98,691.2 MW</li> <li>• Spring: 24.5%, 96,844.0 MW</li> </ul> <p>The Project may provide the following services:</p> <ul style="list-style-type: none"> <li>• Regulating Reserve</li> <li>• Spinning Reserve</li> <li>• Supplemental Reserve</li> <li>• Short Term Reserve</li> <li>• Ramp Capability Product</li> </ul>
<p>A description of the new generation’s anticipated impact on the submitting utility’s resource adequacy and reliability.</p>	<p>This Project is not new generation. The Project is expected to contribute to AES Indiana meeting its resource adequacy requirements and contribute to the overall reliability of AES Indiana's system. Please see AES Indiana witness Bigalbal’s direct testimony at Section 13 for a description of how the Project will address the Five Pillars. Please see AES Indiana witness Miller's direct testimony at Q/A 16 for a description of how the Project will help meet AES Indiana's resource adequacy requirements.</p>
<p>An explanation regarding whether the new generation is required to be in the RTO’s interconnection queue and, if so, its status in the queue.</p>	<p>This Project is not new generation. Petersburg is an existing generator in the MISO market with an executed GIA and the fuel conversion is a <i>de minimis</i> modification, therefore the Project does not need to be in the interconnection queue.</p>

<sup>1</sup> <https://cdn.misoenergy.org/20230117-18%20RASC%20Item%2007%20Preliminary%20PRA%20Data%20Presentation627555.pdf>.

<b>GAO 2022-1 Requirement</b>	<b>Response</b>
A description of the new generation's expected capacity factors, dispatchability, and accreditation characteristics.	This Project is not new generation. Please see AES Indiana witness Miller's testimony at Q/As 33 and 34.
A description of how the new generation is expected to perform at the relevant RTO's peak pursuant to its capacity construct (for example, summer and/or winter and/or other, as may be applicable).	This Project is not new generation. Please see AES Indiana witness Miller's testimony at Q/A 33.