

OFFICIAL
EXHIBITS

FILED
July 30, 2021
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 PETERSBURG)
ENERGY CENTER ("THE PETERSBURG)
PROJECT"); (2) APPROVAL OF THE)
PETERSBURG PROJECT, INCLUDING A JOINT)
VENTURE STRUCTURE BETWEEN AN AES)
INDIANA SUBSIDIARY AND ONE OR MORE TAX)
EQUITY PARTNERS AND A CAPACITY)
AGREEMENT AND CONTRACT FOR)
DIFFERENCES BETWEEN AES INDIANA AND)
THE PROJECT COMPANY THAT HOLDS AND)
OPERATES THE SOLAR 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 PETERSBURG)
PROJECT, INCLUDING AN ALTERNATIVE)
REGULATORY PLAN UNDER IND. CODE § 8-1-)
2.5-6 TO FACILITATE AES INDIANA'S)
INVESTMENT IN THE PETERSBURG 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.)

IURC
PETITIONER'S
EXHIBIT NO. 2
DATE 10-25-21 REPORTER AT

CAUSE NO. 45591

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 attachments of G. Aaron Cooper.

Respectfully submitted,



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D/B/A AES INDIANA

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing was served this 30th day of July, 2021, by electronic transmission or United States Mail, first class, postage prepaid on:

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ATTORNEYS FOR PETITIONER
INDIANAPOLIS POWER & LIGHT COMPANY
D/B/A AES INDIANA
DMS 18777024v1

VERIFIED DIRECT TESTIMONY

OF

G. AARON COOPER

ON BEHALF OF

INDIANAPOLIS POWER & LIGHT COMPANY

D/B/A AES INDIANA

**SPONSORING AES INDIANA CONFIDENTIAL ATTACHMENTS GAC-1, GAC-2 AND
GAC-3**

**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. My business address is One Monument Circle, Indianapolis,
4 Indiana 46204.

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

6 A2. I am employed by AES US Services, LLC, as Chief Commercial Officer, US Utilities.

7 **Q3. On whose behalf are you submitting this direct testimony?**

8 A3. I am submitting this testimony on behalf of AES Indiana.

9 **Q4. Please describe your duties as Chief Commercial Officer, US Utilities.**

10 A4. In my current position, I am responsible for commercial strategy for the 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. Given my
13 extensive commercial experience with electric generation and associated plant economics
14 that I will further describe in Q/A 6 below, I worked with the team that developed the AES
15 Indiana All-Source Request for Proposals (“RFP”) and coordinated the evaluation of the
16 resulting proposals received and selection of proposals. I am also a member of the due
17 diligence and contract negotiation core team.

18 **Q5. Please summarize your educational and professional qualifications.**

1 A5. I received a Bachelor of Science degree, summa cum laude, from Miami University in
2 1991. I have over 30 years of utility experience ranging from T&D Operations to
3 Regulatory Operations, and extensive Commercial Operations experience.

4 **Q6. What is your previous work experience?**

5 A6. I assumed the role of Chief Commercial Officer, US Utilities, in January 2021. Most
6 recently I was Director, Regulatory and Financial Activities - T&D Investments, for AES
7 US Services, LLC. For over a decade, I was the Director of Fuel Supply in Commercial
8 Operations, first for the Dayton Power & Light Company ("DP&L") generating assets
9 located in Ohio and subsequently for all non-AES Indiana, AES-owned solid fuel
10 generating stations in the US, where I was responsible for fuel planning and procurement,
11 logistics, and contract administration. I previously worked in DP&L's Regulatory
12 Operations as Manager of Retail Pricing, as a Manager and Account Manager in DPL Inc.'s
13 unregulated retail electric service subsidiary DPL Energy Resources, and in the DP&L
14 distribution business in major customer account management and supervision of various
15 operational functions including electric construction, field service, and meter reading.

16 **Q7. Have you previously testified before a state regulatory commission?**

17 A7. Yes. I provided testimony in AES Indiana's CPCN filing for Hardy Hills Solar, Indiana
18 Utility Regulatory Commission ("IURC") Cause No. 45493. In Ohio, I have provided
19 testimony supporting DP&L's Fuel Adjustment Clause before the Public Utilities
20 Commission of Ohio in Case No. 11-5730-EL-FAC and Case No. 12-2881-EL-FAC.

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

1 A8. My testimony describes the RFP, the evaluation of the resulting proposals received and
2 selection of a proposed solar generation and battery energy storage system (“BESS”)
3 facility to be known as Petersburg Energy Center (“Petersburg Project” or “Project”). I
4 also discuss the terms of the Membership Interest Purchase and Project Development
5 Agreement (“MIPA”), the Engineering, Procurement, and Construction Agreement
6 (“EPC”) and AES Indiana’s proposed Capacity Agreement and Contract for Differences
7 (“CfD”). I describe AES Indiana’s rights to Renewable Energy Certificates (“RECs”) and
8 any other generation benefits. I also present the best estimate of the cost of the Petersburg
9 Project.

10 Q9. Are you sponsoring any attachments?

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

<u>AES Indiana Confidential Attachment GAC-1</u>	Membership Interest Purchase and Project Development Agreement (“MIPA”)
<u>AES Indiana Confidential Attachment GAC-2</u>	Engineering, Procurement and Construction Agreement (“EPC”)
<u>AES Indiana Confidential Attachment GAC-3</u>	AES Indiana’s proposed Capacity Agreement and Contract for Differences (“CfD”)

12

13 Q10. Were these attachments prepared or assembled by you or under your direction and
14 supervision?

15 A10. Yes.

16 **2. ALL-SOURCE REQUEST FOR PROPOSALS**

17 Q11. Why did AES Indiana conduct an All-Source RFP?

1 A11. AES Indiana's All-Source RFP solicited bids from qualified third parties to competitively
2 procure replacement electric capacity resources beginning in the 2023-2024 MISO
3 Planning Year. As discussed by AES Indiana Witness Miller, AES Indiana's updated 2019
4 IRP analysis identified a need for approximately 250 MW of near-term replacement
5 unforced capacity ("UCAP"). While the IRP modeling indicated that a combination of
6 wind, solar, storage, and energy efficiency would be the reasonable low-cost option for the
7 replacement capacity, the RFP allowed all generation types to participate. This approach
8 provided a means to evaluate various generation technologies based on transactable prices
9 and confirm the IRP Preferred Resource Portfolio Short Term Action Plan is based on the
10 selected resource.

11 **Q12. Please explain the process AES Indiana used to conduct the All-Source RFP.**

12 A12. AES Indiana contracted Sargent & Lundy, LLC ("Sargent & Lundy") to manage the All-
13 Source RFP process. Sargent & Lundy is an engineering consulting firm providing
14 comprehensive engineering, energy business consulting, and project services for power
15 generation and delivery systems. Sargent & Lundy acted as an independent third-party
16 consultant on behalf of AES Indiana to execute the RFP and provide a preliminary
17 evaluation of the proposals.

18 **Q13. Please generally describe the All-Source RFP process.**

19 A13. AES Indiana issued an All-Source RFP for capacity resources, preferably within or
20 connected to, the AES Indiana service territory. The RFP solicited proposals for all or a
21 portion of AES Indiana's forecasted capacity short position. AES Indiana estimated the
22 UCAP for wind and solar resources based on the methodology described in the MISO
23 Renewable Integration Impact Assessment Version 6, dated December 2018. Proposed

resources must be capable of delivering capacity to the MISO Local Resource Zone (“LRZ”) 6. Proposed resources could include transfer of new or existing assets, power purchase agreements, and demand response opportunities. The All-Source RFP was issued December 20, 2019 and is further described by AES Indiana Witness Thibodeau.

Q14. What role did AES Indiana have in the All-Source RFP process?

A14. AES Indiana collaborated with Sargent & Lundy to develop the RFP, including the schedule, RFP documents and requirements, proposal scoring criteria and weighting established for initial proposal evaluation (which was provided in the RFP), and proposal data forms. In order to ensure impartiality in the evaluation and selection process, Sargent & Lundy performed all administration, response accumulation, Phase 1 evaluation, and reporting in a manner that maintained the anonymity of the RFP respondents to the AES Indiana team. When Sargent & Lundy consulted with AES Indiana on responses to respondent questions, all such communications followed a process that safeguarded the anonymity of the participants. AES Indiana did not submit a self-build proposal.

3. RFP BID EVALUATION

Q15. Please describe the process used to assess the responses to the All-Source RFP.

A15. There were three distinct phases to the evaluation of the All-Source RFP.

Phase 1 – as briefly described in response to Q/A 14 and explained in more detail in AES Indiana Witness Thibodeau’s testimony, Sargent & Lundy issued and managed the RFP process and performed an independent preliminary evaluation of the proposals received, including a quantitative Levelized Cost of Energy (“LCOE”) for each of the proposals and a qualitative analysis based on technical viability, development status, developer

1 experience and financing plan, and qualifications. The quantitative and qualitative scores
2 were combined to rank all offers by technology and contract type.

3 Phase 2 – consisted of more refined quantitative, qualitative, and T&D considerations.
4 This phase was collaboratively conducted with Sargent & Lundy, Concentric Energy
5 Advisors (“Concentric”), and internal AES Indiana subject matter experts. This phase
6 included production cost and revenue requirement modeling. As described by AES Indiana
7 Witness Miller, AES Indiana relied on the same “in-house” production cost modeling tool
8 (PowerSimm) it utilized in its 2019 IRP. AES Indiana also retained Concentric to conduct
9 a proposal Ranking Analysis using revenue requirements modeling, as described by AES
10 Indiana Witness Powers. As discussed below, proposals advancing from Phase 2
11 evaluation moved into Phase 3 for due diligence and contract negotiations.

12 Phase 3 – AES Indiana assembled a deal team to evaluate the commercial terms and pricing
13 of the remaining shortlisted proposals. Prior to Phase 3, no one on the AES Indiana
14 evaluation team had any knowledge of specific bidder identities. Concentric provided
15 analytical services related to revenue requirement considerations in Phase 3. AES Indiana
16 also retained 1898 & Co., a Burns & McDonnell Company (“1898 & Co.”), to perform
17 detailed interconnection and congestion evaluations of the remaining shortlisted proposals
18 as part of the Phase 3 evaluation. The 1898 & Co. analysis is discussed by AES Indiana
19 Witness Lind.

20 **Q16. Please explain the results of the Sargent & Lundy Phase 1 evaluation process.**

21 A16. As discussed by AES Indiana Witness Thibodeau, the Sargent & Lundy Phase 1 process
22 led to the initial culling of proposals and resulted in 38 proposals, including six technology
23 types or combinations thereof, being moved to Phase 2 for further evaluation. The initial

1 shortlisting deliberately advanced proposals within buckets by each technology type so that
2 all proposal types or categories would have the opportunity for more in-depth evaluation
3 and consideration.

4 **Q17. Please discuss the process AES Indiana undertook to further evaluate the bids short**
5 **listed by Sargent & Lundy as a result of the Phase 1 evaluation and moved forward**
6 **to the Phase 2 Evaluation.**

7 A17. As noted in response to Q/A 15 above, AES Indiana retained Sargent & Lundy and
8 Concentric to support the Phase 2 evaluation. Deeper evaluation in Phase 2 necessarily
9 required additional clarification as to the subject proposals. Sargent & Lundy facilitated
10 this process to maintain the anonymity of respondents and proposals throughout Phase 2.
11 Sargent & Lundy also refined the Phase 1 qualitative evaluation based on the 12 categories
12 listed below:

- 13 • Technical Viability
- 14 • Development and Schedule Risk
- 15 • Permitting Risk
- 16 • Environmental Impacts
- 17 • Contract Experience
- 18 • Financing Plan and Qualifications
- 19 • T&D System Integration
- 20 • Site Control
- 21 • Community Impacts and Acceptance
- 22 • O&M Plan

- 1 • Fuel Supply Plan (as applicable)
- 2 • Exceptions to Agreements

3 AES Indiana Witness Thibodeau discusses the results of the Phase 2 Qualitative Evaluation
4 and AES Indiana Witness Powers discusses the analytical services related to the revenue
5 requirement calculation.

6 The Phase 2 process structure was designed to merge the quantitative revenue requirement
7 analysis results with the qualitative factors and to explore whether additional critical factors
8 or sub-factors needed to be considered for the determination of proposals to be advanced
9 to Phase 3.

10 **Q18. In addition to the quantitative Ranking Analysis, what qualitative factors were**
11 **considered in selecting proposals to move forward for further analysis?**

12 A18. As noted in the response to Q/A 17 above, AES Indiana considered additional factors
13 beyond, or specific detailed elements within, the Sargent & Lundy Phase 2 qualitative
14 evaluation categories. AES Indiana identified the following five features for each proposal
15 in Phase 2; the first three rising to the level of a binary decision hurdle for proposal
16 advancement to Phase 3.

17 1. The specific MISO Definitive Planning Phase (“DPP”) cycle, otherwise generally
18 addressed in the T&D System Integration, is critical to meeting AES Indiana’s required
19 timelines for replacement capacity to be in service. Therefore, only proposals that were
20 in the 2019 DPP cycle, or earlier, were advanced to Phase 3. Proposals that may qualify

1 for interconnection under the MISO rules corresponding to FERC Order No. 845 were
2 also advanced.¹

3 2. Proposals that did not qualify to receive Zonal Resource Credits for MISO LRZ 6 were
4 not advanced to Phase 3. AES Indiana's service territory and corresponding capacity
5 obligation is in MISO LRZ 6. The RFP explicitly stated that "resources must be
6 qualified to receive Zonal Resource Credits for MISO LRZ 6 consistent with MISO
7 Planning Resource Auction" (p. 4).

8 3. Given AES Indiana's extant coal and natural gas resources in the portfolio, fuel
9 diversity was a necessary feature for proposals to advance to Phase 3.

10 4. Consideration was also given to the customer price variability that would occur after
11 the expiration of a Purchase Power Agreement ("PPA"). For example, the expected
12 useful lives for the solar assets evaluated is 30 years. So, proposals for build transfer
13 would provide predictable rates for customers over that same 30-year period. However,
14 the PPA proposals received in response to the RFP had terms of 20 years or less, leaving
15 the customer energy price unhedged for one-third of that 30-year period.

16 5. Finally, consideration was given to benefits that would result with AES Indiana
17 management and control of a build transfer. AES Indiana considered the reliability
18 benefit of direct control over day-to-day decisions and decisions on operating and
19 maintenance expenditures, which also ensures that future cost savings resulting from
20 lower operation and maintenance expenses will be passed on to customers through
21 rates. AES Indiana can and will leverage the considerable experience of the AES

¹ FERC Order No. 845 resulted in a MISO Tariff change that modified the generator replacement process, permitting incumbent generators to interconnect replacement generation at existing facilities and avoid the DPP cycle.

1 Corporation and its subsidiaries for solar PV facility operation. AES, through its
2 subsidiaries, owns nearly 1 GW of solar generation globally, including over 700 MW
3 of solar in the US.

4 Direct control creates the option for AES Indiana to respond to unexpected changes in
5 supply conditions, MISO rules, and regulatory environments. It creates the opportunity
6 for AES Indiana and its customers to benefit from advancement in technology by
7 expanding, upgrading, or modifying the Facility to include the potential addition of
8 battery storage, extending its life through additional investment and modifying
9 operational controls and production levels.

10 **Q19. Please describe the process to select proposals to advance to Phase 3.**

11 A19. As described in Q/A 17, a Ranking Analysis was performed for all Phase 2 proposals and
12 utilized to compare among the list population on that basis. As described in Q/A 18, certain
13 critical elements affecting proposal viability in the context of AES Indiana's requirements
14 were used as go/no-go decision factors. The entire population of proposals in Phase 2 that
15 met the criteria below were advanced to Phase 3:

- 16 • 2019 DPP Cycle or earlier,
- 17 • Qualify to receive Zonal Resource Credits for MISO LRZ 6,
- 18 • Create generation resource diversity in AES Indiana portfolio.

19 No proposals were excluded from Phase 3 based on their Phase 2 Ranking Analysis result.
20 If a project included a separate proposal with a different deal structure, both deal structures
21 were advanced to Phase 3 – e.g., if a project was offered as a build transfer proposal that

1 was selected to advance to Phase 3 and was also offered as a PPA, both proposals were
2 advanced to Phase 3.

3 **Q20. Please describe Phase 3.**

4 A20. As stated above, in Phase 3 the AES Indiana team learned the bidder identities, conducted
5 due diligence, evaluated the commercial terms and pricing of the remaining shortlisted
6 proposals, assessed development and other risks, and began direct negotiations with
7 bidders. Concentric provided analytical services related to Ranking Analysis in Phase 3
8 and 1898 & Co performed detailed interconnection and congestion evaluations. AES
9 Indiana considered its load forecast and the capacity need beginning in 2023. As the value
10 of the Investment Tax Credit (“ITC”) is critical to the level of AES Indiana investment and
11 corresponding effect on customer rates, diligence also focused on ITC safe harbor status.

12 **Q21. Please discuss Concentric’s role in evaluating bid results during Phase 3.**

13 A21. As discussed by AES Indiana Witness Powers, Concentric was retained by AES Indiana to
14 assist with the Phase 2 and 3 evaluations. Their Ranking Analysis work provided analytical
15 services in the form of revenue requirement calculations to support the evaluation of the
16 responses to AES Indiana’s All Source RFP. This scope builds on Concentric’s work in
17 the development of AES Indiana’s 2019 IRP.

18 **Q22. Please clarify how the information regarding the Petersburg Project gained via due
19 diligence and contract negotiations is reflected in the Phase 3 Ranking Analysis.**

20 A22. Based on the completion of due diligence and negotiation of contract documents, AES
21 Indiana has detailed information regarding Petersburg Energy Center. In the Ranking
22 Analysis, certain costs and assumptions for Petersburg Energy Center are based on very

specific knowledge of the project as compared to the other proposals that are in the Phase 3 Ranking Analysis. These costs and assumptions include fully informed project costs, land lease costs, specific tax costs, decommissioning and demolition costs, and specific solar and BESS resource assessment assumptions and output modeling details. These specific project details are reflected in the Phase 3 analysis of the Petersburg Project. The same level of detail is not known for certain other proposals and consequently the costs and assumptions of these proposals in the Ranking Analysis are less certain. While the Ranking Analysis remains a reasonable tool to assess proposals, the inclusion of proposal specific details can have the effect of increasing or reducing the comparative Ranking Analysis result. While the costs for the Petersburg Project are well understood through the negotiation and due diligence process, other projects that have not similarly advanced in the negotiation process do not necessarily have comparably updated costs and may not reflect fully developed costs. This is the case for each of the proposals [REDACTED].

Q23. Please further describe the work completed by 1898 & Co. during Phase 3.

A23. AES Indiana retained 1898 & Co. to complete transmission system impact studies of shortlisted proposals advancing into Phase 3. For each shortlisted proposal in this Phase, this work included system impact studies and congestion analyses for the proposed interconnection. None of the subject proposals have completed DPP Phase 3, so additions, modifications, and upgrades required at or beyond the point at which the proposal would connect to the transmission system were otherwise unknown or not independently validated. These types of network upgrades can have material costs affecting proposal economics and can also expose the proposal to risk of delay.

1 The congestion analysis description is included in the Interconnection Reliability and
2 Congestion Report sponsored by AES Indiana Witness Lind as AES Indiana Confidential
3 Attachment MEL-1 at p. 26:

4 Each of the short-list selections were evaluated using ABB's PROMOD IV
5 (PROMOD) to simulate security-constrained unit commitment (SCUC) and
6 security-constrained economic dispatch (SCED) across the MISO footprint and
7 neighboring regions. PROMOD simulations calculate the locational marginal price
8 (LMP) for every bus, including generator and load nodes, within the study region.
9 Each LMP represents the marginal price of electricity at a specific location on the
10 grid and varies hourly in PROMOD's day ahead dispatch. One component of the
11 LMP is the congestion component, which is caused by a limitation in the
12 transmission system to effectively deliver the most efficient and lowest cost sources
13 of generation to load. These limitations in the transmission system can cause
14 congestion costs, impact LMPs and effect generation assets dispatch, curtailment,
15 and associated revenues.

16 **Q24. Please describe the development and other risks assessed by AES Indiana in Phase 3.**

17 A24. Development risk is important across a number of dimensions.

- 18 • AES Indiana's 2019 IRP Preferred Resource Portfolio forecasted the retirements of
19 Petersburg Units 1 and 2. With the retirement of Petersburg Units 1 and 2, AES
20 Indiana needs capacity beginning with the 2023-24 MISO planning year. Only
21 proposals that were in the 2019 DPP cycle, or earlier, and proposals that may
22 qualify for interconnection under the MISO rules corresponding to FERC Order
23 No. 845 were advanced to Phase 3.
- 24 • As described in Q/A 20, ITC value is important to the comparative economics of
25 solar resources compared to other resources, to the level of AES Indiana
26 investment, and to the corresponding effect on customer rates. ITC safe harbor
27 status is essential and the proposal being in service by a date certain affects
28 eligibility, making development plan feasibility key to proposal efficacy. In the

1 due diligence process AES Indiana has confirmed the safe harbor status for
2 Petersburg Energy Center.

- 3 • Given the impacts resulting from a proposal failing to achieve the expected
4 commercial operation for planning and preparedness purposes, proposal control
5 and oversight are key, and best achieved by a deal structure based on AES Indiana
6 ownership. Contractual rights can and have been negotiated to ensure effective
7 oversight of the project and its advancement to completion, and to create
8 appropriate incentives for timely completion. AES Indiana has been able to
9 negotiate the use of an “Independent Engineer” in the review of the engineering
10 and design work and ongoing construction, providing a neutral, third-party
11 certification that work conforms with the requirements of the EPC in connection
12 with the achievement of Mechanical Completion, Project Substantial Completion
13 and Final Completion, approving the final punch list of items of work to be
14 completed and the completion by the EPC Contractor of the punch list items, and
15 approving the Punch List Holdback.² The Independent Engineer also certifies that
16 construction progress has been accomplished in line with the construction plan,
17 including for the purposes of authorizing payment of installments of the Contract
18 Price.³ Additionally, AES Indiana personnel will have access for oversight of the
19 project and interaction with the Independent Engineer.⁴

² AES Indiana Confidential Attachment GAC-2 EPC, Section 5.3.

³ AES Indiana Confidential Attachment GAC-2 EPC, Sections 4.1.3, 4.1.4.

⁴ AES Indiana Confidential Attachment GAC-2 EPC, Sections 2.4.4, 2.4.5, 2.6.2, 2.17, 2.18.

- Focusing on proposal execution risk reduction, AES Indiana considered the merits of contracting with two or more developers versus a single developer for multiple proposals.
- AES Indiana evaluated each Phase 3 proposal's permitting plans and any issues that may affect proposal completion and the commercial operation date ("COD"). AES Indiana is not aware of any local pushback to the Petersburg Project in Pike County, Indiana that would prevent or delay permitting or necessary approvals.

I discuss counterparty credit risk in Q/A 34.

Q25. Did AES Indiana consider purchase of power to fill its Short Term Action Plan capacity need?

A25. Yes. The All-Source RFP explicitly invited the submission of PPA proposals. The evaluation process was deliberate in each of the phases of evaluation to ensure that all proposed contracting structures – PPA, build transfer, and demand response – were included in the evaluation, including Phase 3. While AES Indiana considered qualitative factors present for build transfer proposals it has not, at this stage, rejected any PPA proposals on this basis. Phase 3 included a PPA offered as two different proposals. The proposal designations in the Phase 3 Ranking Analysis are

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1 [REDACTED]

2 [REDACTED]

3 [REDACTED]

4 I address the advantages of build transfer proposals relative to PPAs in Q/A 18 and Q/A
5 24. The IURC has a direct and extensive regulatory relationship with AES Indiana. An
6 AES Indiana wholly-owned subsidiary will be the managing member of the Joint Venture
7 LLC that will own the Project Company that owns the solar and solar plus BESS generation
8 assets. AES Indiana Witness Reed also discusses the evaluation of power supply proposals
9 that involve utility ownership arrangements against proposals to provide capacity under a
10 PPA.

11 **Q26. What is the status of AES Indiana's Phase 3 process?**

12 A26. AES Indiana filed a petition and the IURC issued a certificate of public convenience and
13 necessity for AES Indiana's acquisition and development of the Hardy Hills Project
14 through the MIPA and the Joint Venture.⁵ AES Indiana has completed negotiations in
15 connection with one additional solar plus BESS proposal. This solar plus BESS proposal
16 is the subject of the Petition in this Cause and is identified below. This solar plus BESS
17 proposal represents one of the short-listed assets available to AES Indiana from the RFP
18 and plays a role in satisfying the Company's 2019 IRP Short Term Action Plan.

19 **Q27. Were proposals offered on an exclusive basis to AES Indiana?**

20 A27. No. The proposals were not offered to AES Indiana on an exclusive basis. As indicated
21 above, respondents were also in control of the pace at which they engaged in negotiations

⁵ See June 16, 2021 Order in Cause No. 45493.

1 and responded to the due diligence process. Also, respondents could, at any time, withdraw
2 a proposal from consideration. This has occurred with proposals offered in response to the
3 RFP and includes proposals that were a part of the Phase 2 and Phase 3 evaluations. As an
4 example, proposal [REDACTED]
5 [REDACTED] was initially on the Phase 2 proposal list and evaluation, and was
6 withdrawn by the respondent because it had entered into an exclusivity agreement with
7 another party for a PPA. Similarly, there were five proposals that advanced to the Phase 3
8 evaluation that were withdrawn by the respondent(s) – [REDACTED]
9 [REDACTED]. These proposals were
10 consequently removed from the Concentric Ranking Analysis.

11 **4. OVERVIEW OF THE PETERSBURG PROJECT**

12 **Q28. Please describe the Petersburg Project.**

13 A28. A subsidiary of NextEra Energy Resources, LLC (“NextEra”) is developing Petersburg
14 Energy Center, through Petersburg Energy Center, LLC, a special purpose entity (also
15 referred to as “ProjectCo”).

16 Petersburg Energy Center is a 250 MWac, 335 MWdc, solar photovoltaic electric
17 generation facility, coupled with a 180 MWh DC battery energy storage system (60 MW
18 3-hour discharge power capacity – AES Indiana expects to operate it as a 45 MW 4-hour
19 capacity resource for MISO capacity) on an approximately 1,740 acre solar panel farm
20 located in Pike County, Indiana. Transmission and substation facilities are planned to be
21 located in Pike County. Since the Project will utilize the generator replacement provisions
22 of the MISO tariff, the Project will interconnect at the existing AES Indiana Petersburg
23 Generating Station 345 kV switchyard via a generator tie-line from the Project collector

PUBLIC VERSION

1 substation. Petersburg Energy Center will contribute 168 MW of UCAP. Petersburg
2 Energy Center is expected to have an approximate net capacity factor of 18.6 percent
3 (including the BESS in the capacity factor calculation) and generate approximately 538
4 GWh in its first year of operation. The Project will utilize monofacial and bifacial solar
5 modules with single-axis ground mount tracker racking. Petersburg Energy Center is
6 designed to qualify for 26% ITC. The COD for the Project is the second quarter of 2024,
7 prior to the start of the 2024-2025 MISO Planning Year.

8 **Q29. Please describe the process by which AES Indiana selected Petersburg Energy**
9 **Center.**

10 A29. As noted above, all Phase 2 proposals meeting the criteria described in Q/A 19 advanced
11 to Phase 3 for direct due diligence and negotiation with the developer RFP respondents.
12 AES Indiana notified NextEra in August 2020 that one or more of its proposals were being
13 advanced to Phase 3 and negotiations with NexEra began thereafter. Based on the results
14 of the Phase 2 Ranking Analysis and the Sargent & Lundy Phase 2 Qualitative Evaluation,
15 AES Indiana initially began the due diligence process with NextEra regarding two projects
16 that were the basis for [REDACTED]
17 [REDACTED]. [REDACTED]
18 based on the Petersburg Energy Center Project. During the due diligence and negotiation
19 [REDACTED]. AES
20 Indiana continued and completed due diligence and negotiation of the Petersburg Energy
21 Center Project.

22 **Q30. Did AES Indiana have any other consultant assess the reasonableness of the**
23 **Petersburg Energy Center cost?**

1 A30. No, that was not necessary. In the CPCN for Hardy Hills (Cause No. 45493), AES Indiana
2 contracted Leidos to perform an analysis that compared the costs for Hardy Hills to similar
3 projects within the market. The analysis demonstrated that, despite Hardy Hill's higher
4 network upgrade and interconnection costs, the project's costs are still reasonable when
5 compared to other similar projects in the market. For the Petersburg Energy Center, AES
6 Indiana does not see a need to include the additional reasonableness analysis Leidos
7 performed for Hardy Hills, because the network upgrade and interconnection costs are
8 lower for the project.

9 Additionally, the Petersburg Energy Center is among the highest ranked Phase 3 proposals
10 in the Ranking Analysis using the 30-yr PVRR metric. This shows this is a reasonable
11 least-cost project for customers and a good value compared the other market finalists. As
12 discussed by AES Indiana Witness Miller in Q/A 19 of his direct testimony, the PVRR as
13 calculated in Ranking Analysis is an appropriate metric to use to evaluate different types
14 of projects and resources. In the case of the Petersburg Energy Center, it appropriately
15 captures the capacity value of the energy storage component, whereas the LCOE does not.

16 **Q31. AES Indiana Witness Powers shows the Petersburg Project has a favorable PVRR**
17 **compared to projects in the Phase 3 Ranking analysis. What other beneficial**
18 **attributes does the Petersburg Project have?**

19 A31. Good locations for solar depend on attributes such as insolation and available acreage.
20 Such locations are not always a good match for interconnection on the existing
21 transmission system. As renewables proliferate, finding ideal interconnections is getting,
22 and will continue to get, more difficult. The Petersburg Project has these favorable
23 attributes and has a very low interconnection cost since the Project will utilize the generator

1 replacement provisions of the MISO tariff and is interconnecting at the existing AES
2 Indiana Petersburg Generating Station 345 kV switchyard via a generator tie-line from the
3 Project collector substation. In addition to the low interconnection cost, the project is not
4 reliant upon the MISO queue process nor does it require execution by third-party
5 transmission owners to complete the interconnection, both of which create the possibility
6 for delay – this gives control over the timing of the interconnection to AES Indiana and the
7 EPC Contractor.

8 Qualitative factors also support the Petersburg Project. The AES Indiana RFP expressed a
9 preference for Indiana resources. This preference reasonably reflects consideration of
10 deliverability, reliability, resiliency, and Indiana energy security. Further, Petersburg
11 Energy Center is located in Pike County, which is impacted by the retirement of Petersburg
12 Generating Stations Units 1 and 2 – the Project will bring construction jobs and tax base to
13 the county. Its location facilitates AES Indiana’s ability, through the AES Indiana Sponsor
14 member of the Joint Venture, to manage operations and maintenance at the Project.

15 **Q32. How does Petersburg Energy Center fit with AES Indiana’s near-term replacement**
16 **UCAP need?**

17 A32. Petersburg Energy Center’s 168 MW UCAP, combined with the 97.5 MW UCAP of the
18 recently approved Hardy Hills Solar Project fills the need for approximately 250 MW of
19 near-term replacement UCAP. Since the Guaranteed Project Substantial Completion Date
20 for Petersburg Energy Center is May 1, 2024, AES Indiana will need to purchase capacity
21 for the 2023-2024 MISO Planning Year.⁶

⁶ AES Indiana Witness Powers discusses how this cost is treated in the Ranking Analysis.

1 **Q33. Please briefly describe NextEra and their experience in the renewable generation**
2 **business and with solar generation in particular.**

3 A33. NextEra Energy Resources, LLC is a wholly owned subsidiary of NextEra Energy, Inc., a
4 Florida company. NextEra has approximately 50 GW of generating capacity and is a
5 leading clean energy company in North America with electric generation facilities located
6 in 36 U.S. states and four Canadian provinces. NextEra Energy Resources, LLC, together
7 with its affiliated entities, is a leading generator of renewable energy from the wind and
8 sun, and is a leader in battery storage. NextEra owns and operates approximately 15% of
9 the installed base of U.S. wind power production capacity, and owns and/or operates
10 approximately 9% of the installed base of U.S. utility-scale solar production capacity. In
11 recent years, NextEra has also focused on developing and advancing battery technology
12 for energy storage use. NextEra owns nearly 160 MW of energy storage projects. NextEra
13 has a corresponding high level of development experience, procuring over \$2 billion in
14 average annual purchases and construction expertise overseeing the resultant construction
15 projects.

16 **Q34. Please discuss NextEra's creditworthiness.**

17 A34. NextEra's, and more specifically NextEra's subsidiary, Petersburg Energy Center
18 Holdings, LLC's ("Seller") and Seller's EPC affiliate, NextEra Energy Engineering &
19 Construction, LLC's ("Contractor"), financial ability to complete development and
20 construction of the Project and transfer it to Purchaser is important to NextEra and AES
21 Indiana. [REDACTED]

22 [REDACTED] Further, AES Indiana's due diligence when evaluating NextEra's
23 creditworthiness during the RFP process included collection and review of NextEra's credit

1 information. [REDACTED]

2 [REDACTED]

3 [REDACTED] The MIPA and EPC requires that [REDACTED]

4 [REDACTED].⁷

5 **Q35. What is the status of Petersburg Energy Center interconnection to MISO?**

6 A35. Petersburg Energy Center qualifies for interconnection under the provisions of Section 3.7
7 of Attachment X to the MISO tariff. Because the Project will involve a tax equity investor,
8 AES Indiana applied for and received a waiver from FERC regarding the transfer
9 restrictions detailed in Attachment X section 3.7. The Project will be submitted as a
10 replacement request in accordance with the rules in the section detailed in Section 3.7 of
11 Attachment X. Notably, it will interconnect at the existing AES Indiana Petersburg
12 Generating Station 345 kV switchyard via a generator tie-line from the Project collector
13 substation, which satisfies the requirement in subsection i of 3.7.1 regarding the point of
14 electrical interconnection. Currently there is no expectation of delay to the Project
15 commercial operation date based on interconnection.

16 **Q36. Describe the need for the waiver and the waiver process.**

17 A36. After reviewing the bid for the Project, AES Indiana staff met with MISO staff in the fall
18 of 2020 to ascertain the feasibility of involving a tax equity investor in a generator
19 replacement project under the MISO Tariff rules. It was ultimately determined that the
20 Company should seek a waiver of the transfer restrictions for such a project at FERC. On
21 February 11, 2021 AES Indiana filed a project-specific waiver request for the Project in

⁷ AES Indiana Confidential Attachment GAC-1 MIPA at Section 7.1, Exhibit G-1; AES Indiana Confidential Attachment GAC-2 EPC at Section 2.21, also Exhibit K.

1 order to utilize the proposed ownership structure. MISO did not oppose the request. FERC
2 granted the requested relief by order dated May 7, 2021 in docket ER21-1103-000.
3 Through these efforts, the Company was able to achieve interconnection certainty and
4 associated benefits with minimal impact on Project COD.

5 **Q37. Given the need for the waiver, could AES Indiana have considered a 50 percent**
6 **PPA/50 percent build transfer structure of the project proposed by NextEra?**

7 A37. No. In the process of evaluating the project, as indicated above, AES Indiana staff
8 consulted with MISO staff regarding MISO Tariff rules pursuant to the generator
9 replacement process. MISO indicated that PPAs were not eligible for the replacement
10 process. The 50/50 structure would not comport with the ownership requirements of the
11 generator replacement process, for which the waiver was sought to involve a tax-equity
12 investor in a wholly owned AES Indiana subsidiary. The 50/50 structure would involve a
13 separate party that AES Indiana would not own or control, and MISO procedures require
14 the replacement Interconnection Request to be submitted by the same entity that owns the
15 Existing Generating Facility. NextEra is not an owner of the Existing Generating Facility
16 so a NextEra PPA would not eligible, and therefore the 50/50 structure was not pursued
17 further.

18 **Q38. Did AES Indiana assess Petersburg Energy Center's ability to reach commercial**
19 **operation?**

20 A38. Yes. NextEra is an experienced and credible renewable energy developer. As discussed
21 in Q/As 24 and 28, Petersburg Energy Center is at a relatively advanced stage of
22 development and permitting. There is a detailed real estate plan for project leases and
23 easements for the generator tie-line. At the time the MIPA was signed approximately

seventy-five percent of the targeted 1740 acres were under lease agreements. Easement rights are established for key properties adjacent to the AES Indiana Petersburg plant that facilitate the generator tie-line and provide flexibility to accommodate multiple approach routes. The MIPA establishes not-to-exceed amounts for Gen-Tie Line Agreements and all other Pre-Approved Real Property Agreements (other than Gen-Tie Line Agreements).⁸ NextEra has demonstrated appropriate engagement with county and other necessary authorities. NextEra has a clearly identified permitting plan addressing local, state and federal permit requirements, including an optimized footprint for the project in that regard – and the suitability of the plan was confirmed during due diligence. Completion of key permits and Real Property Agreements is a condition of closing.⁹ These provisions as well as the developer’s substantial experience with solar projects (described in Q/A 33) mitigate the risk that a project might not achieve commercial operation. AES Indiana’s investment in the Project as provided in the MIPA and EPC (discussed below) provides very direct level of oversight to mitigate the risk that the project will not reach commercial operation on time.

5. PETERSBURG ENERGY CENTER DEVELOPMENT

Q39. Has AES Indiana entered into an agreement to develop Petersburg Energy Center?

A39. AES Indiana, through a wholly owned subsidiary, AES Indiana Devco Holdings 2, LLC (“AES Indiana DevCo”) has entered into a Membership Interest Purchase and Project Development Agreement (“MIPA”) with Seller in respect of the sale of the membership interests in ProjectCo (the special purpose entity created by the NextEra to begin the

⁸ AES Indiana Confidential Attachment GAC-1 MIPA at Section 4.1.

⁹ AES Indiana Confidential Attachment GAC-1 MIPA at Sections 3.5 and 9.14.

1 development of Petersburg Energy Center). A copy of the MIPA is included with my
2 testimony as AES Indiana Confidential Attachment GAC-1. Concurrent with signing of
3 the MIPA, ProjectCo entered into an EPC with Contractor for overall Project construction
4 management, all civil and electrical infrastructure design, and the coordination and general
5 management of the project work, including the acquisition of all contractor permits. A
6 copy of the EPC is included with my testimony as AES Indiana Confidential Attachment
7 GAC-2. The Agreements are proceeding through NextEra's formal approval process which
8 is expected to conclude in August 2021. I will update my testimony once NextEra notifies
9 AES Indiana that this process has concluded.

10 **Q40. Please briefly summarize the terms of the MIPA and EPC.**

11 A40. AES Indiana, through AES Indiana DevCo, has entered into a MIPA with Seller pursuant
12 to which Purchaser will acquire the ProjectCo once all land rights, permits, authorizations,
13 and material contracts required for Petersburg Energy Center have been secured by
14 ProjectCo.

15 Under the EPC, Contractor will manage all engineering, procurement, and construction
16 activities for the Petersburg Project subject to a pre-agreed scope of work and minimum
17 specifications. Contractor will put in place the necessary equipment supply and
18 construction contracts to conform with these specifications and, in certain instances, pre-
19 agreed forms of agreement. AES Indiana will pay for construction spend against progress
20 milestones under the EPC. Contractor will pay liquidated damages for delays in achieving
21 substantial completion and/or failure to achieve a minimum guaranteed capacity.

1 **Q41. Does NextEra provide any financial assurance that it will meet its obligations under**
2 **the MIPA and EPC?**

3 A41. Yes. See Q/A 34. [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED].¹⁰

7 **Q42. Are any FERC filings and approvals required for the Petersburg Project?**

8 A42. Yes. The Petersburg Project will be self-certified as an Exempt Wholesale Generator
9 (“EWG”).¹¹ As the Project nears completion, a request under Section 205 of the Federal
10 Power Act¹² for any authorizations required to sell the electrical output from the Petersburg
11 Energy Center facility into the wholesale market will be made to FERC.

12 **Q43. What will happen to Petersburg Energy Center once it is developed?**

13 A43. Once the Project nears commercial operation, AES Indiana DevCo will sell the ProjectCo
14 to a Joint Venture between an AES Indiana subsidiary and one or more tax equity partners
15 (“TEP”).

16 **6. JOINT VENTURE**

17 **Q44. Please describe the Joint Venture.**

18 A44. The Joint Venture structure includes a limited liability company (the “Joint Venture, LLC”)
19 operating as a partnership that owns ProjectCo which, in turn owns the solar generation

¹⁰ See AES Indiana Confidential Attachment GAC-1 MIPA, at Section 7.3, Exhibit G-1.

¹¹ 18 C.F.R. § 366.7.

¹² 16 U.S.C. § 824d.

1 assets. The Joint Venture, LLC will be jointly owned by the AES Indiana Sponsor member
2 and by the TEP member. This transaction is detailed by AES Indiana Witness Salatto. His
3 testimony also includes an illustration of the transaction structure. See AES Indiana
4 Attachment FJS-1.

5 **7. CAPACITY AGREEMENT AND CONTRACT FOR DIFFERENCES**

6 **Q45. What is a contract for differences?**

7 A45. A contract for differences is a financial instrument entered into by two parties wherein the
8 buyer agrees to settle with the seller the difference between the current value of an asset
9 and its value at the time of the contract. At settlement, if the market price is higher than
10 the contract for differences fixed price, the seller pays the difference to the buyer; if the
11 market price is lower than the contract for differences fixed price, the buyer pays the
12 difference to the seller. In energy markets, a contract for differences provides one party a
13 fixed price for electric energy when a party is not physically transacting in the underlying
14 commodity (i.e. electric energy).

15 **Q46. Please describe the terms of AES Indiana's proposed Capacity Agreement and CfD.**

16 A46. The CfD is a contract between AES Indiana and the ProjectCo. The CfD is effectively a
17 fixed-price energy hedge equivalent to that provided by traditional AES Indiana-owned
18 generation. The CfD establishes a fixed price for the facility energy output. ProjectCo is
19 the market participant and sells all the energy from the facility into the MISO market. The
20 CfD is settled between AES Indiana and the ProjectCo to provide the ProjectCo predictable
21 cash revenue and the certainty of a fixed price for AES Indiana customers. For example,
22 if the MISO price is greater than the CfD price, the difference is credited to AES Indiana;
23 conversely, if the MISO price is less than the CfD price, the difference is paid by AES

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1 Indiana to the ProjectCo. AES Indiana buys its load obligation from MISO at the LMP
2 and the CfD settlement between AES Indiana and ProjectCo offsets the MISO purchase so
3 that financially the corresponding purchase of energy is at the CfD fixed price.

4 The CfD includes a monthly Capacity Payment based on the operating capacity of the
5 BESS, as tested, and an efficiency rate factor based on the minimum guaranteed efficiency
6 rate for the BESS and actual efficiency.

7 The CfD also directly assigns the MISO LRZ 6 credits to AES Indiana, along with the
8 RECs created by the Petersburg Project. AES Indiana is credited the net of Ancillary
9 Services associated with the facility and any other generation benefits the ProjectCo
10 receives under the Generator Interconnection Agreement.

11 AES Indiana's analysis contemplates the term of the CfD will be approximately [REDACTED] years.

12 A copy of the CfD is provided as AES Indiana Confidential Attachment GAC-3. This
13 contract remains subject to negotiation and is expected to be completed once the TEP is
14 known.

15 **Q47. Why is a CfD being used for this transaction?**

16 A47. As just discussed, the CfD is a "financial" rather than a "physical" contract. As explained
17 by AES Indiana Witness Salatto, by utilizing the CfD, AES Indiana and TEP as partners in
18 the Joint Venture, LLC, are able to avoid the potential negative tax implications that would
19 exist if a Purchase Power Agreement were used, and this in turn allows AES Indiana to
20 utilize the tax benefits of the Petersburg Project for the benefit of AES Indiana's customers.

21 **Q48. What is the estimated pricing for the CfD for Petersburg Energy Center?**

1 A48. The pricing for the first full year under the CfD for Petersburg Energy Center, 2025, is
2 estimated to be approximately [REDACTED] per MWh for energy [REDACTED]
3 [REDACTED] and a storage capacity payment estimated to be
4 approximately [REDACTED] per month, [REDACTED]
5 [REDACTED] As described in Q/A 45, the price is the result of a computation
6 designed to achieve a targeted return on investment of the acquired Project based on each
7 party's underlying investment profile and characteristics. The final CfD price is subject to
8 negotiation with the tax equity investor.

9 **Q49. How was the pricing for the CfD determined?**

10 A49. The price of the CfD is determined by calculating, on a \$/MWh and capacity payment
11 basis, an amount that enables both the TEP and the AES Indiana Sponsor of the Joint
12 Venture, LLC to achieve a targeted return on investment of the acquired Project based on
13 each party's underlying investment profile and characteristics.¹³ TEP's membership
14 interests in the Joint Venture, LLC will enable the TEP to receive a specific percent of the
15 ITCs and tax losses generated by the Project along with distributions of up to a specific
16 percent of any excess cash generated by the Project. Once TEP has attained an internal
17 rate of return ("IRR") as specified in the Joint Venture, LLC Limited Liability Company
18 Operating Agreement ("Joint Venture LLCA"), the allocation of taxable income, loss, gain,
19 and deductions changes as between AES Indiana Sponsor and TEP and the allocation of
20 such taxable income, loss, gain, and deductions to the TEP drops. At this point, AES
21 Indiana Sponsor member of the Joint Venture, LLC will have the option to acquire the TEP

¹³ As proposed, distributions to AES Indiana from the ProjectCo will be credited to customers through the FAC.

1 interest for fair market value as defined in the Joint Venture LLCA. If AES Indiana
2 Sponsor acquires the TEP interest, AES Indiana can consolidate the Project and eliminate
3 the need for the CfD.

4 **Q50. Is this pricing reasonable?**

5 A50. The CfD price is considered to be market-based at a level in which the transaction will
6 attract TEP investment. Attracting the TEP investment is a key component of all solar +
7 storage projects, whether the project is a build transfer or a PPA.

8 **Q51. Why did AES Indiana choose not to execute the CfD at this point?**

9 A51. While we have a CfD that is ready to be executed including pricing, we view it as too early
10 to execute it. Waiting to execute this agreement provides flexibility should facts or
11 circumstances arise that could enable us to better optimize the CfD for our
12 customers. While none are anticipated at this time, we are primarily thinking of changes
13 in tax laws that could occur between now and when the project comes on-line.¹⁴

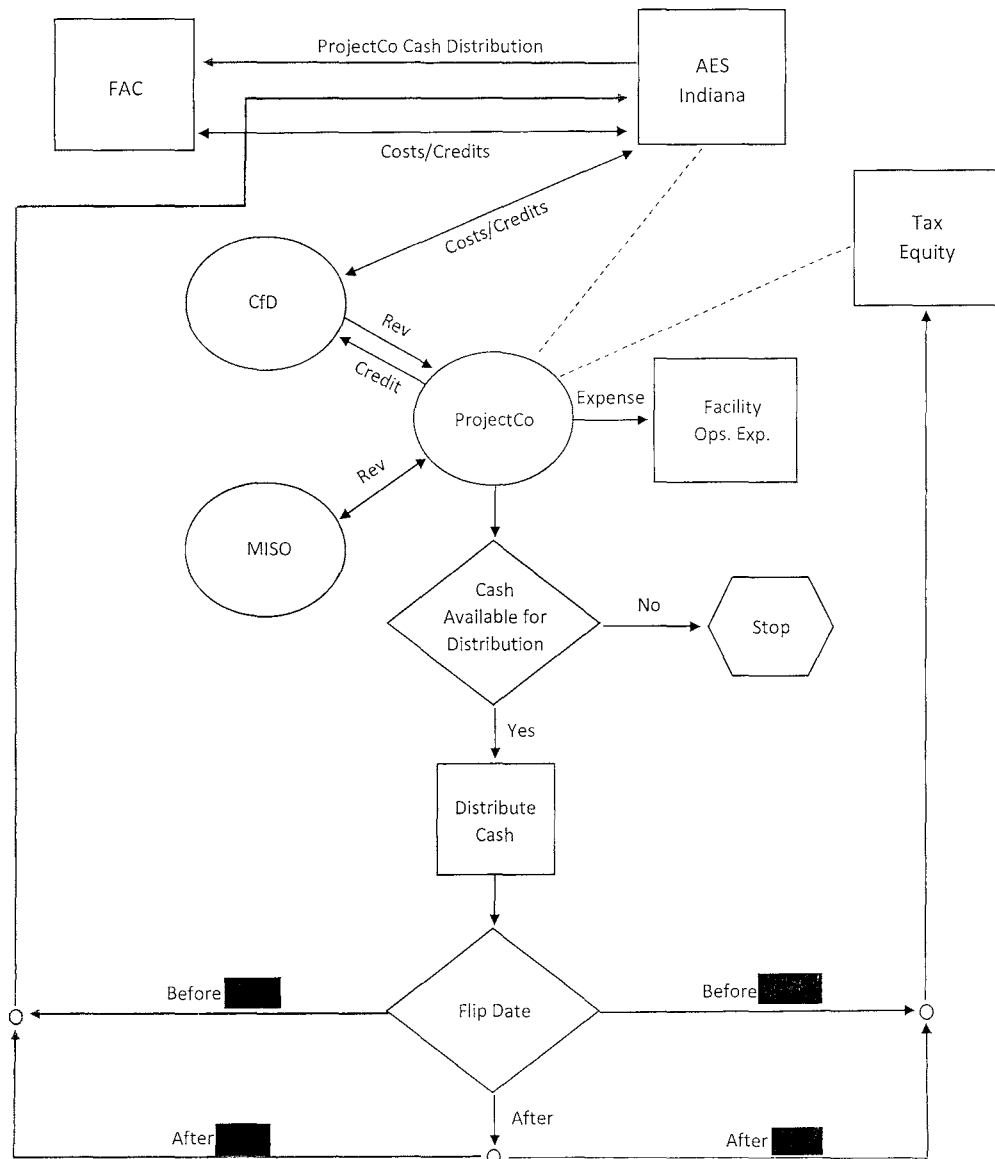
14 **Q52. What is the cash flow for the settlements and earnings distributions under the CfD?**

15 A52. As described in Q/A 45 and Q/A 46, AES Indiana does not take delivery of the energy
16 from the ProjectCo under the CfD. Instead, AES Indiana financially settles each month for
17 the difference between the CfD price and the actual LMP. AES Indiana proposes that
18 amounts paid by AES Indiana to the ProjectCo or paid by the ProjectCo to AES Indiana
19 will be charged or credited respectively to the Fuel Adjustment Clause ("FAC") for timely
20 recovery or crediting to AES Indiana customers. Similarly, ProjectCo cash distributions
21 will be timely credited to AES Indiana customers through the FAC. This is consistent with

¹⁴ See also AES Indiana Witness Salatto Direct Testimony at Q/A 33.

the treatment approved for the Hardy Hills Project in Cause No. 45493. Figure 1 below shows how, at a high level, these charges and credits flow to AES Indiana customers.

Figure 1. Illustrative Petersburg Project Revenues and Distributable Cash Flows¹⁵
Illustrative Petersburg Energy Center Project
Revenues and Distributable Cash Flows



¹⁵ Does not reflect intermediate holding companies. Does not reflect any tax attributes allocation between AES Indiana and TEP.

1 **Q53. Please discuss how ProjectCo will operate.**

2 A53. The AES Indiana Sponsor of the Joint Venture will be responsible for operations and
3 operating decisions. Operations will be funded by a combination of two revenue sources
4 – MISO sales and revenue from a CfD between the ProjectCo and AES Indiana. It is
5 anticipated that O&M will be performed by AES Indiana under an intercompany O&M
6 agreement. This approach will leverage AES Indiana’s existing facility and resources
7 efficiently for the benefit of this Project and our customers.

8 **Q54. Please explain why the Joint Venture documents cannot be executed now.**

9 A54. Until it is clear the project will be built and proceed, Tax Equity Partnership (“TEP”)
10 investors will not engage in detailed diligence/negotiations as they have finite
11 resources. This will not occur until the final regulatory approval is secured, which is the
12 initial major milestone for the project to move forward.

13 Prior to the Joint Venture LLCA and the Equity Capital Contribution Agreement and
14 Membership Interest Purchase Agreement between AES Indiana DevCo and Joint Venture,
15 LLC transferring the ProjectCo (“TEP MIPA”) being negotiated and executed, parties will
16 agree on major items through term sheet negotiations. The term sheet that AES Indiana is
17 proposing to use, is attached to Witness Salatto’s testimony as AES Indiana Confidential
18 Attachment FJS-2. Once the term sheet is agreed, documentation of the Joint Venture
19 LLCA will proceed.

20 The Investment Tax Credit (“ITC”) tax benefits flow to the TEP in the year the project
21 comes on-line. For the Petersburg Project this is 2024. TEP’s are unable to provide
22 commitments this far in advance for a 2024 project such as the Petersburg Project as they
23 do not yet know what their respective tax positions will be for 2024 and how much tax-

equity appetite they will have. Most TEP's are rounding out their 2021 project allocations now and are looking at providing commitments for 2022 projects.

8. RECS

Q55. What are RECs?

A55. A REC is produced when a renewable energy resource generates one MWh of electricity and delivers it to the grid. For example, if a solar facility produces five MWh of electricity, it has five RECs to either keep or sell. The exchange of RECs is tracked and recorded. RECs were created as a means to track progress towards and compliance with states' Renewable Portfolio Standards. However, any corporation, business, nonprofit, or individual may purchase RECs to meet their renewable energy objectives. AES Indiana expects that the RECs produced by the Petersburg Project will be tracked through the Midwest Renewable Energy Tracking System or similar system.

Q56. How are RECs from Petersburg Energy Center treated in the transaction?

A56. As described in Q/A 46, the CfD directly assigns the RECs created by the Petersburg Project to AES Indiana.

Q57. What does AES Indiana plan to do with the RECs?

A57. AES Indiana may either retain the RECs associated with the Petersburg Project or sell them. If AES Indiana retains the RECs, AES Indiana may retire them or allow them to expire. If AES Indiana sells the RECs, the value associated with the sale would be credited to customers. AES Indiana will make a good faith effort to discuss its plans with the OUCC.

9. BEST ESTIMATE OF PETERSBURG PROJECT

Q58. What is the Company's best estimate for the cost of the Petersburg Project?

A58. The best estimate for the Petersburg Project cost is identified by component in Table 1.

Table 1. Petersburg Energy Center Best Estimate¹⁶

Base Purchase Price (per MIPA)	
EPC Price (per EPC)	
Interconnection cost	
Pre-COD land lease and property tax	
Tax equity contribution	
Total	

Q59. How was the cost estimate developed?

A59. The cost for Petersburg Energy Center was determined through the competitive RFP and subsequent negotiations with NextEra. The best estimate for Petersburg Energy Center is then directly from the MIPA and EPC and associated documents. See "Base Purchase Price", Exhibit A, Definitions, in AES Indiana Confidential Attachment GAC-1, Membership Interest Purchase, Project Development. See "EPC Price" in AES Indiana Confidential Attachment GAC-2, Engineering, Procurement and Construction Agreement, at Exhibit B. The interconnection cost reflected in the best estimate is from AES Indiana Transmission Planning Engineering. AES Indiana Witness Salatto explains the basis for the estimated TEP contribution.

Q60. Is it possible that AES Indiana will make additional investment in the acquisition of the Petersburg Project beyond the best estimate of the investment discussed above?

A60. Yes. AES Indiana does not anticipate a need for additional investment beyond the best estimate of the investment discussed above. However, situations such as force majeure,

¹⁶ Best estimate excludes carrying charges. See AES Indiana Witness Rogers Direct Testimony.

excused events, increases to transmission interconnection costs or AES Indiana-initiated change orders, could result in a need for additional investment. The costs of any such additional investment would be presented by AES Indiana to the Commission for review and approval prior to recovery through rates.

Q61. In your opinion, is the estimated cost of the Petersburg Project reasonable?

A61. Yes. The Petersburg Energy Center cost is the result of the competitive RFP process and direct negotiation.

Q62. What contractual protections are included in the MIPA and EPC agreements with NextEra to limit the possibility of project cost increases?

A62.

[REDACTED]

¹⁷ AES Indiana Confidential Attachment GAC-1 MIPA at Section 4.1.

¹⁸ AES Indiana Confidential Attachment GAC-2 EPC at Section 4.1.3.

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1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]

15 While the Company has taken steps to safeguard project costs, the Company does not have
16 control over all factors that impact costs, such as project cost increases due to force

¹⁹ AES Indiana Confidential Attachment GAC-2 EPC Section 6.2.1.

²⁰ AES Indiana Confidential Attachment GAC-2 EPC Section 6.1.2.

²¹ AES Indiana Confidential Attachment GAC-2 EPC Section 6.3.

²² AES Indiana Confidential Attachment GAC-2 EPC Section 6.4.2.

²³ AES Indiana Confidential Attachment GAC-2 EPC Section 6.5.2.

²⁴ AES Indiana Confidential Attachment GAC-2 EPC Section 6.4.

²⁵ AES Indiana Confidential Attachment GAC-2 EPC Sections 9.1 and 9.2.

²⁶ AES Indiana Confidential Attachment GAC-2 EPC Article 7.

²⁷ AES Indiana Confidential Attachment GAC-2 EPC Section 7.1.

1 majeure, including unforeseeable conditions at the site, and changes in law, including
2 changes in tax law.

3 **Q63. What guarantees exist for the development of the Petersburg Project facilities to**
4 **assure that the Project's major facilities' operations will align with reasonable**
5 **expectations of the performance, and the major equipment suppliers will honor all**
6 **warranties, guarantees, and commitments to the Project?**

7 A63.

[REDACTED]

15 **Q64. Did AES Indiana comply with Ind. Code § 8-1-8.5-5(e)?**

16 A64. Yes. The Commission should find that AES Indiana has satisfied this statutory requirement
17 or decline to exercise it.

18 In pertinent part, this statutory subpart provides that the Commission must find that the
19 estimated costs of the proposed facility are, to the extent commercially practicable, the
20 result of competitively bid engineering, procurement, or construction contracts, as

²⁸ AES Indiana Confidential Attachment GAC-2 EPC Article 8.

1 applicable. The statutory provision contains other related provisions relevant to the
2 competitive procurement of generating facilities.

3 The Commission recently found that the purpose behind this statutory provision is: 1) to
4 confirm the reasonableness and reliability of the cost estimates that form the basis for the
5 Commission's best estimate finding; and 2) to assure that the actual costs that are incurred
6 are, to the extent commercially practicable, based on competitive procurement.²⁹

7 Here, the need for the renewable generation for which AES Indiana seeks approval in this
8 filing was originally defined in AES Indiana's 2019 IRP. AES Indiana issued an All-
9 Source RFP in December 2019. Respondents to the RFP were motivated to reply with firm
10 and competitive bids in order to be considered for AES Indiana's investment and the
11 negotiation of an agreement. In the case of Petersburg Energy Center, an EPC Contractor
12 will be used as discussed above and reflected in AES Indiana Confidential Attachment
13 GAC-2. Because AES Indiana's proposal to develop Petersburg Energy Center grew out
14 of the competitive All-Source RFP, the estimated cost of this proposed Project stems from
15 competitive bids from developers. It was commercially practicable to secure the estimated
16 costs of the Petersburg Project in this manner.

17 In sum, the estimated cost of the Petersburg Project is reasonable and reliable because it is
18 the product of the competitive bidding process and a negotiated and executed MIPA and
19 EPC. The Commission should find that the requirements of Ind. Code § 8-1-8.5-5(e) have
20 been satisfied. In the alternative, the Commission should decline to exercise jurisdiction

²⁹ AES Indiana, Cause No. 45493 (IURC 6/16/2021) (Hardy Hills), p. 13 citing Orders in Cause No. 45462 (Dunn's Bridge/Cavalry) at 71 and Cause No. 45194 (Rosewater) at 56 (8/7/2019).

1 under this section. The process used by the Company reasonably addresses the risk of cost
2 overruns and the statutory requirements have been reasonably satisfied. Therefore, it
3 would be unnecessary or wasteful to further exercise these statutory requirements.

4 **10. ONGOING REVIEW**

5 **Q65. Please discuss the Company's request for ongoing Commission review?**

6 A65. AES Indiana proposes that the Commission maintain an ongoing review of the construction
7 of the Project as it proceeds. This process will include the reporting of information to the
8 Commission as well as the conducting of confidential briefings to update the OUCC and
9 Intervenors as the Company moves through the negotiation of the CfD and TEP
10 agreements.

11 AES Indiana proposes to submit semi-annual progress reports to the Commission during
12 construction, including any revisions to the cost estimates for the Project cost. The final
13 project report will contain the following information: (a) the actual total cost of
14 construction; (b) the total megawatt output for the Project; and (c) the actual in-service
15 (commercial operation) date for the Project. The semi-annual progress reports would be
16 filed in a subdocket subject to the protection of confidential information.

17 a. First progress report will be filed by September 30, 2022.

18 b. Second progress report will be filed by March 31, 2023.

19 c. Reports thereafter will be filed on a like schedule until project COD.

20 The Company proposes to work with the OUCC and any intervenors on an agreed
21 procedural process that will allow the reports, including any cost increase requests, to be
22 reviewed and addressed by Commission decision in 120 days.

1 Also, AES Indiana will offer to meet with the OUCC and intervenors at least twice as the
2 Company moves through the negotiation of the unexecuted agreements. The purpose of
3 the confidential briefing will be to update the OUCC and Intervenors on the status of the
4 agreements and any changes in contract terms that result in additional costs that will impact
5 rates or changes in how AES Indiana may manage the project. The briefing will also cover
6 updates on expected economics for the CfD, Joint Venture LLCA, and TEP MIPA
7 including, but not limited to:

- 8 • CfD: Pricing and term; and
- 9 • Joint Venture LLCA & TEP MIPA: TEP contribution amounts, TEP rate of return,
10 projected flip date, Cash and Tax distribution splits.

11 AES Indiana contemplates that the first meeting will be in Q3 2023; the second meeting
12 will be prior to the execution of the agreements. AES Indiana will file the executed CfD
13 and the Joint Venture LLCA and TEP MIPA in the ongoing review process (subject to
14 protection of confidential information).

15 **11. CONCLUSION**

16 **Q66. What is your recommendation to the Commission?**

17 A66. I recommend the Commission issue a Certificate of Public Convenience and Necessity and
18 otherwise approve AES Indiana's development of Petersburg Energy Center and the
19 associated relief sought by the Company in this proceeding.

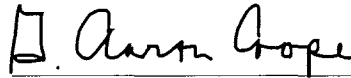
20 **Q67. Does that conclude your prepared verified direct testimony?**

21 A67. Yes

VERIFICATION

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

Dated July 30, 2021.

A handwritten signature in black ink, appearing to read "G. Aaron Cooper", written over a horizontal line.

G. Aaron Cooper

MEMBERSHIP INTEREST PURCHASE AND PROJECT DEVELOPMENT AGREEMENT

BETWEEN

AES INDIANA DEVCO HOLDINGS 2, LLC

(“PURCHASER”)

PETERSBURG ENERGY CENTER HOLDINGS, LLC

(“SELLER”)

EFFECTIVE AS OF JULY 9, 2021

PETERSBURG PROJECT

AES Indiana Confidential Attachment GAC-1

(Pages 2 through 352 Confidential – Not Reproduced Herein)

AES Indiana Confidential Attachment GAC-2

Engineering, Procurement and Construction Agreement

(Confidential – Not Reproduced Herein)

AES Indiana Confidential Attachment GAC-3

AES Indiana's proposed Capacity Agreement and Contract for Differences

(Confidential – Not Reproduced Herein)