

FILED
June 17, 2021
INDIANA UTILITY
REGULATORY COMMISSION

SOUTHERN INDIANA GAS AND ELECTRIC COMPANY
d/b/a CENTERPOINT ENERGY INDIANA SOUTH
(CENTERPOINT INDIANA SOUTH)

IURC CAUSE NO. 45564

DIRECT TESTIMONY
OF
ERIN M. CARROLL
SENIOR VICE PRESIDENT, POWER ADVOCATE

ON

POWER ADVOCATE ANALYSIS RELATED TO REQUEST FOR PROPOSAL AND BID
PROCESS FOR COMPANY'S SECTION OF COMBUSTION TURBINES

SPONSORING PETITIONER'S EXHIBIT NO. 3

ATTACHMENTS EMC-1 (CONFIDENTIAL) AND EMC-2 (CONFIDENTIAL)

DIRECT TESTIMONY OF ERIN M. CARROLL

1 **I. INTRODUCTION**

2

3 **Q. Please state your name and business address.**

4 A. My name is Erin Carroll. My business address is 70 Lincoln Street, Boston, MA.

5

6 **Q. On whose behalf are you submitting this direct testimony?**

7 A. I am submitting testimony on behalf of Southern Indiana Gas and Electric Company d/b/a
8 CenterPoint Energy Indiana South ("Petitioner", "CenterPoint Indiana South", or
9 "Company"), which is an indirect subsidiary of CenterPoint Energy, Inc.

10

11 **Q. What is your role with respect to Petitioner?**

12 A. I am a Senior Vice President ("SVP") at PowerAdvocate ("PA"). PowerAdvocate is a
13 leading solutions provider of industry-specific actionable intelligence for cost
14 management. Using advanced technologies, proprietary data assets and vast industry
15 experience, PowerAdvocate provides energy, infrastructure, and natural resources
16 customers with the solutions that drive enterprise performance. The company brings
17 transparency to otherwise opaque markets and ensures efficient capital investment. Both
18 in the United States and around the world, PowerAdvocate helps customers solve some
19 of the world's most complex cost management challenges with a data-driven approach.
20 PowerAdvocate execution teams leverage that data-driven approach to help our clients
21 complete capital projects and programs on schedule, at a lower total cost, and with less
22 risk by helping improve planning, estimating, project controls, and supply chain contract
23 strategy development and execution. Our firm was hired to manage the bid event, evaluate
24 bids, and provide market insights for the A.B. Brown Simple Cycle Gas Turbine Project
25 ("Project"), also referred to as the Combustion Turbine ("CT") Project by other Company
26 Witnesses.

27

28 **Q. Please describe your educational background.**

29 A. I received my B.S. in Mechanical Engineering from Worcester Polytechnic Institute (1986),
30 an M.S. in Mechanical Engineering from Union College in Schenectady New York (1989),
31 and a high-tech MBA from Walden University/NTU (2008). I am a licensed Professional

1 Engineer in Maine.
2

3 **Q. Please describe your professional experience.**

4 A. I originally joined PA in January of 2007. My previous jobs included Director of
5 Consultative Services at Vermont Energy Investment Corporation ("VEIC") and Director
6 of Engineering at Northern Power. I have also worked as an engineer and project manager
7 for Parsons Main and AEP ProServ. My background includes engineering for combined
8 cycle plants, peaking units, renewable energy facilities, combined heat and power
9 facilities, ship propulsion systems, as well as project management.
10

11 **Q. What are your present duties and responsibilities as SVP of Client Services at
12 PowerAdvocate?**

13 A. In my current role, I lead PowerAdvocate's large capital sourcing engagements covering
14 new generation plant construction and renewable project construction.
15

16 **Q. Have you previously testified before the Indiana Utility Regulatory Commission (the
17 "Commission")?**

18 A. No.
19

20 **Q. Have you previously testified before any other Regulatory Commissions?**

21 A. Yes. In 2009 I testified on behalf on Entergy Louisiana, LLC in conjunction with the
22 suspension of a utility project
23

24 **Q. Are you sponsoring any attachments to your direct testimony in this proceeding?**

25 A. Yes, I sponsor the following attachments:

- 26 ▪ Petitioner's Exhibit No. 3, Attachment EMC-1 (CONFIDENTIAL): A.B. Brown
27 Escalation Analysis prepared by PowerAdvocate
- 28 ▪ Petitioner's Exhibit No. 3, Attachment EMC-2 (CONFIDENTIAL): PowerAdvocate
29 Analysis Related to RFP and Bid Process – Summary of Confidential Tables
30

31 **Q. Were these attachments prepared by you or under your supervision?**

32 A. Yes, they were.
33

1 **II. PURPOSE & SCOPE OF TESTIMONY**

2
3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. The purpose of my testimony is to describe the process that Petitioner deployed in the
5 procurement of the A.B. Brown Simple Cycle Gas Turbine Project and describe the
6 analysis performed by PowerAdvocate to assess the market competitiveness of the bid
7 selected.

8
9 **III. OVERVIEW**

10
11 **Q. What was the Petitioner's strategic approach for the facility?**

12 A. The Petitioner was looking for a firm that would provide all engineering of the facility, the
13 procurement of all equipment, and the construction of the project, also known as an
14 Engineering, Procurement & Construction ("EPC") firm. The Petitioner was also looking
15 for a firm that would fully wrap the project, meaning that the firm designing the project and
16 procuring the equipment would guarantee the output of the facility, the schedule, and
17 warranty issues after completion. The selected firm would be held accountable for the
18 schedule and performance through both contractual language and financial penalties. The
19 bid process would ensure that the Petitioner would be able to meet these strategic goals
20 at a cost competitive price point.

21
22 **Q. How would the Petitioner ensure that the project was the result of a competitively
23 bid engineering, procurement, or construction contract?**

24 A. The Petitioner would ensure that the project was cost competitive by performing a robust
25 bid process, analyzing the prices received to ensure they were market competitive and
26 negotiating favorable terms and price reductions. PowerAdvocate was hired to support the
27 bid event process, analysis, and negotiations.

28
29 **Q. What is the relationship between Black & Veatch and PowerAdvocate for this effort?**

30 A. PowerAdvocate collaborated with Black & Veatch ("B&V"), to develop and execute the bid
31 event for the Project. PowerAdvocate reviewed the Petitioner's standard commercial bid
32 documents, along with project specific bid documents provided by B&V. PowerAdvocate
33 was responsible for: gathering all the documents to support a competitive bid process;

1 supplementing the developed documentation through the creation of bid sheets to
2 streamline collection of Bidder information associated with the bid event; validating the bid
3 event Bidder's List and inviting the Bidders to the Request for Proposal ("RFP" or "bid
4 event"); developing a bid evaluation scorecard; executing the competitive bid event;
5 coordinating the bid event review process; supporting the bid event negotiation process;
6 and ensuring that the bid event scorecards were completed.

7
8 **Q. What was PowerAdvocate's Scope of Work?**

9 A. The Petitioner hired PowerAdvocate to identify any procurement execution gaps and
10 ensure all functions during the bid process were covered by a combination of Petitioner,
11 B&V and PowerAdvocate. Once the bid documents were complete, PowerAdvocate was
12 responsible for the management of the procurement process. In supporting the bid
13 evaluations, PowerAdvocate's role was to provide market insights for equipment and
14 services, which included a combination of primary (our Energy Factbase and Energy
15 Intelligence Group ("EIG")), and secondary (publicly available information), research. This
16 information provided insights regarding the stability of supply chain as well as the financial
17 and manufacturing stability of key suppliers, capacities, and orders for the equipment.
18 PowerAdvocate developed a customized cost model of the Project utilizing
19 PowerAdvocate's Cost Intelligence Software as a Service "SAAS" product. This model
20 included key project drivers that analyzed the submitted pricing to ensure that the bid
21 prices would be adequate to cover the project time frame. A report of the cost model
22 development and results is set forth in the A.B. Brown Escalation Analysis included with
23 my testimony as Petitioner's Exhibit No. 3, Attachment EMC-1 (CONFIDENTIAL).

24
25 **Q. What was the bid event process?**

26 A. For reasons set forth later in my testimony, the bid event process included two rounds of
27 RFPs with the following steps associated with each RFP to execute a competitive RFP:

- 28 • Round 1 RFP
 - 29 ○ Develop and validate Vendor Bid List
 - 30 ○ Confirm Interest from Vendors (Bidders)
 - 31 ○ Gather technical, commercial, and legal documents that defined project
 - 32 ○ Execute competitive RFP
 - 33 ○ Evaluate responses after Round 1 closing date

- 1 ○ Determine adequacy of bid responses
- 2 ○ Determine if Round 2 RFP Required
- 3 • Round 2 RFP
- 4 ○ Invite Bidders to Round 2
- 5 ○ Update and gather appropriate technical, commercial, and legal documents
- 6 ○ Execute competitive RFP
- 7 ○ Evaluate responses after Round 2 closing date
- 8 ○ Collect any additional information or clarification required from Bidders that was
- 9 not originally submitted
- 10 ○ Support completion of scorecard from internal team members
- 11 ○ Summarize scorecard responses
- 12 ○ Recommend Bidder to proceed with final negotiations
- 13 ○ Complete final negotiations
- 14 ○ Award contract

15

16 **Q. What were Petitioner's goals of the RFP bid event?**

17 A. The RFP was structured to meet the following objectives:

- 18 (1) Ensure that EPC contract structure is aligned with the project risk allocation and
19 Petitioner's risk profile
- 20 ○ This was reflected in the contractual approach that requested that the Vendors
21 provide a lump sum turnkey ("LSTK") EPC project that guaranteed Project
22 output and completion date
- 23 (2) Ensure that entire project team, (Petitioner, B&V, and PowerAdvocate) was
24 involved in a transparent process;
- 25 ○ The RFP was executed on PowerAdvocate's Sourcing Intelligence. A web-
26 based software that allows for project team collaboration during the RFP
27 process and tracks all documents submitted by Bidders. All communication
28 with Bidders is captured within the bid event and can be accessed by all project
29 team members.
- 30 (3) Gather data to meet regulator submittal requirements.
- 31 ○ RFP documents were structured to competitively gather detailed pricing in
32 support of the Project scope
- 33 (4) Obtain project price certainty.

- 1 ○ The LSTK contract structure required Bidders to submit a fixed price for the
2 execution of the Project
- 3 (5) Work to include local workforce as part of the solution; and
- 4 ○ Contractors were encouraged to provide local subcontractors as part of their
5 Project execution approach
- 6 (6) Obtain market-based performance guarantee and warranty.
- 7 ○ Initial term sheet anchored Bidders around performance guarantee and
8 warranty requirements with established liquidated damages tied to Project
9 output and delivery schedule.

10

11 **Q. How were the Bidders for the bid event selected?**

12 A. In 2018, the Petitioner executed a Request for Information (“RFI”) to test the market and
13 ensure that there was a robust list of competitive turnkey providers. This included a mix of
14 combustion gas turbine (“CGT”) original equipment manufacturers (“OEMs”) as well
15 potential turnkey EPC providers. As part of the RFI evaluation, Petitioner performed
16 interviews with the large firms that could provide all services required in the RFP
17 documents under a single contract structure (Tier 1 contractors) and OEM providers to
18 gain information on how each group would approach the Project. Concurrently the Project
19 team reviewed CGT OEM providers who indicated they were interested in both equipment
20 supply but would also be willing to enter into an EPC-type agreement for this type of
21 Project. The RFI Bid List was comprised of experienced EPCs with relevant project
22 experience and an indicated willingness to participate.

23

24 The final Bidders were notified, and all stated they intended to bid the scope when the
25 event was opened.

26

27 **Q. What was the final bid strategy that supported Petitioner’s RFP goals?**

28 A. The commercial structures defined for the RFP included a LSTK option for both the EPC
29 Bidders and OEM Bidders as well as an OEM Equipment and Services Supply contract.
30 The intent of the OEM Equipment and Services Supply Proposal was to determine the
31 price delta for buying the combustion turbine generator (“CT”) from an EPC contractor
32 versus the OEM supplier. If the Petitioner purchased the equipment from the OEM, the
33 EPC would be obligated to wrap the OEM equipment into the overall performance and

1 schedule guarantee as Owner Furnished Equipment ("OFE"). The goal of these options
2 and structures was to provide a means to analyze the price impact of the LSTK contract
3 structure.
4

5 **Q. What was the bid event timeline?**

6 A. The bid event timeline is shown below:

- 7
- 8 • Round 1
 - 9 ○ RFP Opened: 01 October 2020
 - 10 ○ Pre-Bid Meeting: 08 October 2020
 - 11 ○ Intent to Bid Forms Submitted: 09 October 2020
 - 12 ○ Round 1 RFP Anticipated Close Date: 27 November 2020
 - 13 ○ Round 1 RFP Actual Close Date (extension granted based on Bidder request): 04
14 December 2020
 - 15 • Round 2 RFP – EPC
 - 16 ○ RFP Opened: 27 January 2021
 - 17 ○ RFP Close Date: 02 March 2021
 - 18 • Round 2 RFP – OEM
 - 19 ○ RFP Opened: 09 February 2021
 - 20 ○ RFP Close Date: 02 March 2021

21 **Q. What were the results of the Round 1 RFP?**

22 A. When the Round 1 RFP closed on December 4, 2020, four (4) Bidders submitted
23 responses and three (3) declined to bid. There were LSTK bids from LSTK Bidder 1 and
24 Kiewit Power Constructors, Inc ("Kiewit"). OEM Bidder 1 and OEM Bidder 2 declined to
25 bid the LSTK solution, but each provided an Equipment and Services bid for the CT supply
26 with a companion Long-Term Service Agreement ("LTSA"). Non-Bidder 1, Non-Bidder 2
27 and Non-Bidder 3 declined to bid. A table identifying the Round 1 RFP Final Bidder List
28 is included as Table 1 in Petitioner's Exhibit No. 3, Attachment EMC-2 (CONFIDENTIAL).
29

30 LSTK Bidder 1 provided a turnkey proposal with the CT as OFE, Kiewit provided both a
31 LSTK full wrap proposal where Kiewit procured the CT as well as an alternative turnkey
32 proposal with the CT as OFE. OEM Bidder 1 and OEM Bidder 2 each provided two CTs
33 that met the technical specifications. Neither OEM offering included a full performance

1 wrap. A summary of the bids received in response to the Round 1 RFP bid event is
2 included in Table 2 in Petitioner's Exhibit No. 3, Attachment EMC-2 (CONFIDENTIAL).

3
4 **Q. Why were there so few turnkey bids?**

5 A. Although the OEM CT Providers each indicated they would explore larger roles in the plant
6 delivery structure, within 24 hours OEM Bidder 1 and OEM Bidder 2 both indicated they
7 would prefer to only provide an Equipment and Services Supply Proposal. The Bidders
8 provided the following reasons for their responses:

- 9 ○ Non-Bidder 2 declined to participate, indicating they would be participating in an
10 arrangement with other companies.
- 11 ○ OEM Bidder 1 subsequently determined they would not participate as a turnkey and
12 would only provide an Equipment and Services Proposal.
- 13 ○ Non-Bidder 1 requested an extension on the intent to bid, which was granted. After a
14 series of internal meetings, they declined to participate citing their machines would not
15 be competitive in the simple cycle configuration
- 16 ○ OEM Bidder 2 initially declined to provide a proposal; during follow-up, they indicated
17 there was more opportunity with the turnkey contractors.
- 18 ○ Non-Bidder 2 was acquired and rebranded as a new company. They requested the
19 opportunity to re-evaluate their participation. This request was granted but Non-Bidder
20 2 declined participation citing they would not be able to provide a lump sum and felt
21 they would be uncompetitive at this time.
- 22 ○ Non-Bidder 3 submitted notice they would not be providing a proposal two (2) days
23 before the RFP closed, citing as reasons the regulatory uncertainty of the Project, and
24 limited time to provide a proposal. They did not respond to requests for additional
25 information.

26
27 **Q. What were the results of the Round 1 RFP?**

28 A. PowerAdvocate performed an analysis to normalize and align the bids received. Kiewit
29 offered the most competitive pricing in Round 1 for both the LSTK and OFE options. The
30 price for the CT assignment was calculated through a review of the CT pricing provided
31 by OEM Bidder 1 and OEM Bidder 2 and adding to the base price options that ensured
32 that the scopes followed the specification.

33

1 **Q. What recommendations did PowerAdvocate provide based on the Round 1 bid**
2 **event?**

3 A. The main conclusion from the Round 1 bid event was that based on the Kiewit proposal,
4 the price for LSTK contract where the EPC was fully wrapping and managing the CT
5 supply appeared to be on par with the Petitioner buying the CT and assigning it to the EPC
6 provider. The preliminary conclusion was that the Petitioner would not be paying an
7 inflated CT price to the EPC provider to assume the risk for the CT procurement, delivery,
8 and installation. Since there was only one LSTK bid, we recommended to execute a
9 Round 2 bid to validate that conclusion and ensure that any other scope gaps were filled.
10 Additional gaps identified included a large variation in the proposed key terms and project
11 approach.

12
13 **Q. How would the second round provide further information.**

14 A. The approach to the Round 2 bid event was to expand the bid pool to enable additional
15 competitiveness, provide more details around the required commercial terms and update
16 the bid package based on clarifications requested during the Round 1 event. The goal was
17 to have aligned scopes, price, and at least one additional Bidder. PowerAdvocate
18 performed an RFI from January 18, 2021 to January 22, 2021 to gauge interest from
19 additional Bidders. A summary of the bids received in response to the Round 2 bid event
20 is included in Table 3 in Petitioner's Exhibit No. 3, Attachment EMC-2 (CONFIDENTIAL).

21
22 Bidders were also asked to provide price deltas for including either the OEM Bidder 1 or
23 OEM Bidder 2 CT. This approach would increase competition, add additional pressure on
24 the Bidders to provide a LSTK full wrap price, and ensure that all Bidders understood the
25 Petitioner's commercial requirements to ensure those bids were appropriately priced.

26
27 PowerAdvocate would also execute a proposal update period with the CT OEMs to
28 validate assumptions around scope adders and options. This effort would also focus on
29 the LTSA pricing and scope since the Petitioner would be responsible for procuring those
30 services regardless of how the CT was procured. By negotiating the LTSA terms and price
31 concurrently with the EPC contract, the Petitioner would have the most leverage to ensure
32 competitive pricing.

33

1 **Q. How were LSTK Bidder 3's qualifications confirmed?**

2 A. LSTK Bidder 3 is a subsidiary of a large end-to-end solutions provider in the electric power
3 sector (the "Parent Company"). Although their RFI data shows them considerably smaller
4 than other Bidders; the Project is within their abilities. The Parent Company (through its
5 affiliates) is a large construction services supplier of CenterPoint Energy, Inc., the ultimate
6 parent company of Petitioner. The strategy was that LSTK Bidder 3 would bring a fresh
7 approach. LSTK Bidder 3 identified that they would partner with an engineering and
8 environmental consulting firm on the project. LSTK Bidder 3 identified a power plant in a
9 Midwestern state as their reference plant, which is a plant very similar to the Bid
10 specification.

11

12 **Q. What were the final Round 2 RFP results?**

13 A. PowerAdvocate analyzed the three EPC bids to ensure that the prices aligned to the same
14 scope as well soliciting input from the B&V and Petitioner's technical group to fully evaluate
15 and compare the proposals.

16

17 Kiewit and LSTK Bidder 1 both demonstrated a strong technical understanding of the
18 scope and fully completed the requested submittals regarding the engineering design
19 criteria and deliverables as well as the full bill of quantities for the scope of work. LSTK
20 Bidder 3 did not fully complete the required submittals and the project engineering
21 approach was not as well defined as the other Bidders. Further pricing evaluation revealed
22 that the initial price offering from LSTK Bidder 3 was incomplete and needed to be revised
23 to reflect the same scope as the Kiewit and LSTK Bidder 1 bids.

24

25 An evaluation scorecard was used to compare the Bidders. This scorecard was developed
26 prior to the Round 1 RFP bidding and updated prior to the close of Round 2 RFP. The
27 scorecard assigned weights to both technical and commercial areas of the proposal.
28 Evaluation criteria and criteria weighting was proposed by PowerAdvocate and refined
29 collaboratively by members of the project team and B&V to reflect deliverables required
30 by the RFP and provide a demonstrable selection of a submitted LSTK proposal.
31 PowerAdvocate worked with the project team to collect independent score and then to
32 consolidate and provide a summary level scorecard. Technical scoring was provided by
33 B&V, while commercial scoring, including pricing, was scored by PowerAdvocate. The

1 scorecard methodology is included in Figure 1 of Petitioner's Exhibit No. 3, Attachment
2 EMC-2 (CONFIDENTIAL).

3
4 **Q. What was the recommendation for award?**

5 A. The project team determined that Kiewit was the optimal Bidder to perform this work based
6 on the technical, commercial, and pricing aspects of their proposal. While LSTK Bidder 1
7 had a strong technical understanding of the project, their high pricing and positions on the
8 commercial terms and conditions reduced their commercial score. LSTK Bidder 3's high
9 price and technical approach reduced their overall competitiveness. The populated
10 scorecard detailing the score for each Bidder is included as Figure 2 of Petitioner's Exhibit
11 No. 3, Attachment EMC-2 (CONFIDENTIAL).

12
13 Not only did Kiewit have the best overall score, but they also had the lowest bid price and
14 the lowest expected contract price, when all options are considered, and scopes area
15 aligned as shown in Table 8.

16
17 Round 2 bid event also confirmed that the LSTK price was actually lower than having the
18 Petitioner assign the CT to the EPC Bidder. This ensures that the EPC Bidder will manage
19 the risk for the CT supply, delivery, and installation within the fixed price offering.

20
21 **Q. Is Kiewit's price the result of a process to competitively bid engineering,**
22 **procurement, or construction contracts for the CT Project at the A.B. Brown Site?**

23 A. Yes, for two reasons. The first is the robust procurement process that was executed to
24 drive competition and ensure that all Bidders were on an even playing field. Round 2
25 enabled the Petitioner to align commercial terms and clarify technical scope to ensure that
26 the prices received were on the same risk, technical, and commercial basis. Since all three
27 Bidders provide a LSTK price with a full wrap, the analysis was able to confirm the
28 competitiveness of that contract structure.

29
30 The second reason is that the bid analysis that was performed by PowerAdvocate was
31 done not just on the total price but on the analysis of the pricing details. These details
32 included a detailed combined commercial and technical review (B&V and PowerAdvocate)
33 of the cost buildup and a review of material quantities and labor hours, as well as the

1 assumptions around contingency and escalation. The hourly rates for both construction
2 and engineering were examined and compared to each Bidder as well as to
3 PowerAdvocate's Factbase to check for reasonableness.

4

5 **Q. Is the LSTK price adequate to cover market escalation?**

6 A. Yes. PowerAdvocate is working with Kiewit to negotiate a lower escalation amount.
7 Further information is included in Petitioner's Exhibit No. 3, Attachment EMC-1
8 (CONFIDENTIAL).

9

10

11

12 **IV. CONCLUSION**

13

14 **Q. Does this conclude your direct testimony?**

15 A. Yes, at the present time.

VERIFICATION

I, Erin M. Carroll, Senior Vice President, Power Advocate, under the penalty of perjury, affirm that the answers in the foregoing Direct Testimony are true to the best of my knowledge, information and belief.

A handwritten signature in black ink, appearing to read "Erin M. Carroll", is written over a solid horizontal line.

Erin M. Carroll
Senior Vice President, Power Advocate

Attachment EMC-1 (CONFIDENTIAL) provided separately

Attachment EMC-2 (CONFIDENTIAL) provided separately