

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

**IURC CAUSE NO. 45847**

**REBUTTAL TESTIMONY  
OF  
F. SHANE BRADFORD  
VICE PRESIDENT, POWER GENERATION OPERATIONS**

**ON**

**BEST ESTIMATE OF COST OF THE POSEY COUNTY SOLAR PROJECT,  
INTERCONNECTION COST AND NEED FOR CAPACITY**

**SPONSORING PETITIONER'S EXHIBIT NO. 2-R (PUBLIC),  
ATTACHMENTS FSB-R1 THROUGH FSB-R6**

REBUTTAL TESTIMONY OF F. SHANE BRADFORD

1 I. **INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is F. Shane Bradford. My business address is 211 NW Riverside Drive,  
4 Evansville, Indiana, 47708.

5 **Q. BY WHOM ARE YOU EMPLOYED?**

6 A. I am employed by Southern Indiana Gas and Electric Company d/b/a CenterPoint Energy  
7 Indiana South (“Petitioner”, “CEI South”, or “Company”), which is an indirect subsidiary of  
8 CenterPoint Energy, Inc.

9 **Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS REBUTTAL TESTIMONY?**

10 A. I am submitting testimony on behalf of CEI South.

11 **Q. WHAT IS YOUR ROLE WITH RESPECT TO PETITIONER CEI SOUTH?**

12 A. I am Vice President of Power Generation Operations.

13 **Q. ARE YOU THE SAME F. SHANE BRADFORD THAT PREVIOUSLY TESTIFIED IN THIS**  
14 **PROCEEDING?**

15 A. Yes, I am.

16 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?**

17 A. My rebuttal testimony provides further support for CEI South’s request for an Order in this  
18 Cause amending, pursuant to Ind. Code § 8-1-2-72, the Commission’s October 27, 2021  
19 Order in Cause No. 45501 (the “45501 Order”) to reflect the terms of an Amended &  
20 Restated BTA (the “Amended & Restated BTA”) entered into on February 1, 2023 between  
21 CEI South and Posey Solar CEI, LLC, which is now an affiliate of Arevon Energy,  
22 Inc. (“Arevon”).<sup>1</sup> The Amended & Restated BTA sets forth revised terms under which  
23 CEI South will purchase and acquire the now 191 MWac Posey County Solar Project  
24 (or, the “Project”).

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<sup>1</sup> Arevon was formed through the combination of Capital Dynamics' U.S. Clean Energy Infrastructure business unit (“Capital Dynamics”) and Arevon Asset Management.

1 In particular, my rebuttal testimony responds to the OUCC’s recommendation “that the  
2 approved cost estimate for the Posey County Solar Project not exceed the original BTA  
3 purchase price of [REDACTED] million.”<sup>2</sup> “Without this decrease to CEI South’s estimate,”  
4 OUCC Witness Leader states that “the OUCC does not find it to be reasonable for CEI  
5 South to continue with the Posey County Solar Project as other options may become more  
6 competitive to pursue.”<sup>3</sup>

7 I have not attempted to respond to every argument made by OUCC witnesses. The fact  
8 that I may not have responded to any specific argument or statement made by OUCC  
9 witnesses does not indicate my agreement with that argument or statement.

10 **Q. WHAT IS YOUR GENERAL RESPONSE TO THE OUCC’S RECOMMENDATION?**

11 A. As I and other CEI South witnesses will discuss in greater detail, CEI South’s best estimate  
12 of \$429 million for the construction of the Posey County Solar Project results in a total cost  
13 that is competitive with prices available in the market and I do not think it is realistic to  
14 arbitrarily reduce the estimated cost of the Project and/or hope that other “options may  
15 become more competitive to pursue” at some unspecified lower cost.<sup>4</sup> Nor is such a hope  
16 warranted based on the results of CEI South’s most recent All-Source Request for  
17 Proposals (“RFP”), which was issued on May 11, 2022 for fully accredited capacity to be  
18 provided no later than March 1, 2027.

19 The OUCC is proposing the Commission find the “best estimate” of the Posey County  
20 Solar Project is the BTA purchase price presented in Cause No. 45501, but due to  
21 substantial changes in the solar market that began in late-2021, the price and project  
22 capacity proposed in Cause No. 45501 are no longer practical or available. Nonetheless,  
23 the OUCC appears to have “forced” its estimate of Owner’s Costs to an unrealistic amount  
24 to arrive at a total estimate for the Posey County Solar Project that matches the BTA  
25 purchase price presented in Cause No. 45501 and wants that “estimate” to be a hard cap  
26 on the price of the Project. The OUCC’s rationale to propose the [REDACTED] million estimate  
27 is not well-founded and should not be considered the “best estimate” of the cost of the  
28 Project.

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<sup>2</sup> OUCC Exh 1 at 4, lines 4 to 6.

<sup>3</sup> *Id.* at 4, lines 9 to 11.

<sup>4</sup> *Id.*

CEI South’s \$429 million cost estimate represents the best estimate. If the costs are below the best estimate that is found by the Commission, CEI South will only seek to recover the final, actual costs of the Project when placed in-service.

**Q. ARE YOU SPONSORING ANY ATTACHMENTS TO YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?**

A. Yes. I am sponsoring the following attachments:

- Petitioner’s Exhibit No. 2-R, **Attachment FSB-R1 (CONFIDENTIAL)**: Notice of Potential Delay;
- Petitioner’s Exhibit No. 2-R, **Attachment FSB-R2 (CONFIDENTIAL)**: CEI South’s Response to OUCC’s Third Set of Data Requests;
- Petitioner’s Exhibit No. 2-R, **Attachment FSB-R3 (CONFIDENTIAL)**: Executed Generator Interconnection Agreement;
- Petitioner’s Exhibit No. 2-R, **Attachment FSB-R4 (CONFIDENTIAL)**: 2022 All-Source RFP Solar Pricing Summary (including correct interconnection costs);
- Petitioner’s Exhibit No. 2-R, **Attachment FSB-R5 (CONFIDENTIAL)**: Summary of Differences between CEI South’s Estimated Owner’s Costs and the OUCC’s Estimated Owner’s Costs; and
- Petitioner’s Exhibit No. 2-R, **Attachment FSB-R6 (CONFIDENTIAL)**: OUCC Response to CEI South Data Request No. 1.4.

**Q. WERE THESE ATTACHMENTS PREPARED BY YOU OR UNDER YOUR SUPERVISION?**

A. Petitioner’s Exhibit No. 2-R, **Attachment FSB-R1 (CONFIDENTIAL)** is the Notice of Potential Delay that Arevon sent to CEI South on October 20, 2021, which was provided to me by other members of the Company’s management team. I oversaw preparation of Petitioner’s Exhibit No. 2-R, **Attachments FSB-R2 (CONFIDENTIAL), FSB-R4 (CONFIDENTIAL), and FSB-R5 (CONFIDENTIAL)**. The Generator Interconnection Agreement provided as Petitioner’s Exhibit No. 2-R, **Attachment FSB-R3 (CONFIDENTIAL)** was negotiated by CEI South’s transmission business unit and I am familiar with its contents. Petitioner’s Exhibit No. 2-R, **Attachment FSB-R6 (CONFIDENTIAL)** is the OUCC’s response to a Data Request that I assisted in preparing.

1     **II.     INTRODUCTION OF REBUTTAL WITNESSES**

2     **Q.     PLEASE BRIEFLY INTRODUCE THE OTHER WITNESSES PROVIDING REBUTTAL**  
3     **TESTIMONY ON BEHALF OF CEI SOUTH IN THIS PROCEEDING.**

4     A.     In addition to my testimony, CEI South is offering the rebuttal testimony of the following  
5     Witnesses:

- 6     ▶     Mr. Matthew A. Rice, Director, Rates & Regulatory Indiana Electric, responds to  
7     OUCC Witness Leader’s contentions regarding the rate impact of Petitioner’s  
8     proposal in this proceeding, as well as CEI South’s rates in general.
- 9     ▶     Ms. Chrissy M. Behme, Manager, Regulatory Reporting, responds to arguments  
10    made by OUCC Witness Latham regarding CEI South’s administrative and general  
11    (“A&G”) overhead allocation, Mr. Latham’s view on inclusion of Allowance for Other  
12    Funds Used During Construction (“AFUDC”), and his recommendation that the  
13    estimated cost of the project exclude Generation Transition Asset (“GTA”) allocation costs notwithstanding the fact that CEI South has requested and received approval from the Commission for projects that included similar allocated deferred planning costs and GTA allocated amounts.<sup>5</sup>

17    **III.    THE OUCC’S “BEST ESTIMATE” IS NOT AN ESTIMATE**

18    **Q.     WHAT DOES INDIANA CODE § 8-1-8.5 PROVIDE WITH RESPECT TO ESTIMATES**  
19    **OF THE COST OF GENERATION FACILITIES TO BE CONSTRUCTED BY PUBLIC**  
20    **UTILITIES?**

21    A.     While I am not an attorney, I am generally familiar with the factors set forth in Indiana Code  
22    § 8-1-8.5-5, which provides that “[a] certificate shall be granted only if the commission has:

23           (1) *made a finding as to the best estimate of construction, purchase,*  
24           *or lease costs based on the evidence of record;*

25           (2) made a finding that either:

26               (A) the construction, purchase, or lease will be consistent  
27               with the commission’s analysis (or such part of the analysis as may  
28               then be developed, if any) for expansion of electric generating  
29               capacity; or

30               (B) the construction, purchase, or lease is consistent with a  
31               utility specific proposal submitted under section 3(e)(1) of this  
32               chapter and approved under subsection (d). . . .;

33           (3) made a finding that the public convenience and necessity  
34           require or will require the construction, purchase, or lease of the facility;

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<sup>5</sup> See Order Cause No. 45564 (IURC 6/28/22) and Order Cause No. 45754 (IURC 1/11/23).

(4) made a finding that the facility, if it is a coal-consuming facility, utilizes Indiana coal or is justified, because of economic considerations or governmental requirements, in using non-Indiana coal.”

(emphasis added). While Indiana Code § 8-1-8.5-5 requires that the Commission make a finding as to the “*best estimate* of construction, purchase, or lease costs,” Indiana Code § 8-1-8.5-6.5 provides “[a]bsent fraud, concealment, or gross mismanagement, a utility shall recover through rates the *actual costs* the utility has incurred in reliance on a certificate issued under this chapter.” (emphasis added).

I am also aware that the Commission recently has commented on its application of the above statute in its June 28, 2022 Order in Cause No. 45564 (the “45564 Order”). The 45564 Order recognizes while “least-cost planning is an essential component of [ ] CPCN law”, “least-cost planning does *not* require selection of the absolute lowest cost alternative.”<sup>6</sup> Furthermore, the Commission recognized that, “[i]f a utility reasonably considers and evaluates the statutorily required options for providing reliable, efficient, and economic service, then the utility should . . . be given some discretion to exercise its reasonable judgment in selecting options to implement which minimize the cost of providing such services.”<sup>7</sup> The 45564 Order, in part, provides:

While we have indicated in previous CPCN cases that least-cost planning is an essential component of our CPCN law, we have also recognized that least-cost planning does not require selection of the absolute lowest cost alternative. See, e.g., *Indianapolis Power & Light Co.*, Cause No. 44339, at 20 (May 14, 2014) (quoting *Southern Indiana Gas & Elec. Co.*, Cause No. 38738, at 5 (Oct. 25, 1989)). We have defined least-cost planning as a planning approach that will find the set of options most likely to provide utility services at the lowest cost once appropriate service and reliability levels are determined. We also consider the risk created by future uncertainty. Ind. Code ch. 8-1-8.5 does not require a utility to ignore its obligation to provide reliable service or to disregard its exercise of reasonable judgment on how best to meet its obligation to serve. If a utility reasonably considers and evaluates the statutorily required options for providing reliable, efficient, and economic service, then the utility should, in recognition that it bears the service obligations of Ind. Code § 8-1-2-4, be given some discretion to exercise its reasonable judgment in selecting options to implement which minimize the cost of providing such services. *Id.*

45564 Order at 21.

<sup>6</sup> Order Cause No. 45564, at 21 (IURC 6/28/22) (emphasis added). <sup>7</sup> *Id.*

**Q. DOES THE OUCC CONTEND THE POSEY COUNTY SOLAR PROJECT IS NOT CONSISTENT WITH CEI SOUTH’S 2019/2020 IRP OR THE PUBLIC CONVENIENCE AND NECESSITY NO LONGER “REQUIRE OR WILL [NOT] REQUIRE THE CONSTRUCTION, PURCHASE, OR LEASE OF THE FACILITY”?**

A. No. On page 11 of his testimony, OUCC Witness Leader states, in part, that while the “OUCC agrees the Posey County Solar Project is still necessary and is competitive with recent bids CEI South has received in its most recent all-source Request for Proposals, certain project costs are unnecessary or unreasonable.”<sup>8</sup> Likewise, OUCC Witness Krieger testifies that “CEI South does require the energy Posey County Solar will produce.”<sup>9</sup> In other words, the OUCC agrees the need for the Posey County Solar Project continues. As the Commission found in Cause No. 45501:

The record demonstrates the Warrick and Posey Projects are consistent with the preferred portfolio identified in Petitioner’s 2019/2020 IRP. Under the preferred portfolio, [CEI South] adds 1,150 MW of new solar and solar plus storage in 2023-2024 to replace coal capacity. The preferred portfolio reflects [CEI South] pursuing renewable projects within the next three years based on the retirement of F.B. Culley 2 and the expiration at the end of December 2023 of the JOA for Warrick Unit #4.

Order in Cause No. 45501, p. 28.

**Q. DOES THE OUCC CONTEND THE POSEY COUNTY SOLAR PROJECT SHOULD BE DENIED BECAUSE IT HAS BECOME AN IMPRUDENT INVESTMENT?**

A. No. To the contrary, OUCC Witness Krieger specifically states that the OUCC is “not suggesting the overall project be rejected.”<sup>10</sup>

**Q. IN YOUR OPINION, IS THE \$429 MILLION ESTIMATE CATEGORIZED IN THE TABLE PRESENTED ON PAGES 7 THROUGH 8 OF YOUR DIRECT TESTIMONY THE “BEST ESTIMATE OF CONSTRUCTION, PURCHASE, OR LEASE COSTS”?**

A. Yes. As indicated in my direct testimony, the costs reflected in the Table represent “the best estimate of construction, purchase, or lease costs [for the Posey County Solar Project].” None of the costs included in CEI South’s estimate are “unnecessary” or “unreasonable” as the OUCC claims.<sup>11</sup> To the contrary, the costs are reasonable, necessary and prudent; and help avoid expending unnecessary time, money, or other

<sup>8</sup> OUCC Exh 1 at 11, lines 10 to 13.

<sup>9</sup> OUCC Exh. 3 at 11, line 4.

<sup>10</sup> OUCC Exh. 3 at 6, line 20.

<sup>11</sup> *Id.* at 4, line 3.

resources to redo the process of requesting approval in the cost of the project, especially in today’s volatile market. In particular, it is imperative that the best estimate for the cost of the project include a reasonable amount of contingency for costs for which the occurrence or amount is uncertain, but experience shows could be incurred. And as I stated before, if the actual costs are below this best estimate, CEI South will only seek to recover the final, actual costs of the Project when placed in-service.

**Q. IN YOUR OPINION, COULD THE COMMISSION FIND THE OUCC’S PROPOSED ESTIMATE IS THE “BEST ESTIMATE OF CONSTRUCTION, PURCHASE, OR LEASE COSTS” OF THE POSEY COUNTY SOLAR PROJECT UNDER THE AMENDED & RESTATED BTA?**

A. No. Fundamentally, the OUCC’s proposed [REDACTED] million is not an estimate for the current Posey County Solar Project at all but rather is the February 9, 2021 BTA purchase price for a 300 MWac solar facility. The 2021 BTA purchase price for the initial project is no longer viable. The factors that make the price and project negotiated in 2020/2021<sup>12</sup> obsolete are the same as those set forth in testimony OUCC Witness Leader sponsored in Cause No. 45786, in which the Commission approved a pricing change to a Power Purchase Agreement (“PPA”) that CEI South also entered into in 2021. In Cause No. 45786, Mr. Leader testified:<sup>13</sup>

Common metal prices, including copper, steel, and aluminum, have increased. Copper prices rose about 26% during 2021, although it has since fallen. Steel prices experienced some extreme changes during the same time period. Aluminum’s price in October 2022 was about 60.7% higher than it had been exactly a year before. The prices for other materials, labor, and freight have also increased. . . .

Beginning in the summer of 2021, solar panels entering the US have been detained or have been subjected to additional tariffs. The Federal Government took these steps due to allegations that Chinese solar panels were made with forced labor. Furthermore, in March and April 2022, the Commerce Department investigated solar panel imports from Malaysia, Thailand, Vietnam, and Cambodia. This was based on allegations that Chinese solar panels were being resold by those countries. Tariffs were considered, including retroactive tariffs. President Biden acted to prevent new tariffs and make importing solar panels easier again in June 2022.<sup>14</sup>

<sup>12</sup> The original BTA was entered into on February 9, 2021.

<sup>13</sup> Cause No. 45786, OUCC Exh. 1 at 3, lines 2 to 7 and lines 10 to 16 and at 4, lines, 1 to 2 (footnotes omitted).

<sup>14</sup> Mr. Leader offered similar testimony in Cause No. 45839, in which he supported updates to the pricing of two other Power Purchase Agreements. Mr. Leader stated: “ Since the beginning of summer 2021, solar



1 Mr. Leader’s testimony regarding the price increases that have affected the solar industry  
 2 are consistent with data provided to CEI South by Wood MacKenzie Supply Chain  
 3 Consulting Cost Intelligence, which are summarized in my direct testimony. Wood  
 4 MacKenzie found that since the start of 2020, the average spot price for copper has  
 5 jumped about [REDACTED] aluminum prices are up almost [REDACTED] and steel, both hot-rolled coil  
 6 and pipe and tube, is up about [REDACTED] cer price index of grain oriented  
 7 electrical steel, used in transformers, has increased [REDACTED]

8 Simply put, a BTA purchase price negotiated in 2020/2021 for a solar project is not useful  
 9 in estimating the price of a solar project to be constructed in 2024 – especially when the  
 10 project scope differs. The February 9, 2021 BTA purchase price cannot be considered a  
 11 “best estimate” of the cost of the Posey County Solar Project under the Amended &  
 12 Restated BTA.

13 **Q. DO YOU HAVE ANY OTHER REACTION TO MR. LEADER’S RECOMMENDATION**  
 14 **THAT THE APPROVED COST ESTIMATE FOR THE POSEY COUNTY SOLAR**  
 15 **PROJECT NOT EXCEED THE ORIGINAL PURCHASE PRICE AND THAT AMOUNT**  
 16 **SHOULD PROVIDE “ENOUGH FUNDS TO ADDRESS ADDITIONAL POTENTIAL**  
 17 **COSTS AND PROVIDES A REASONABLE AMOUNT FOR OWNER’S AND PLANNING**  
 18 **COSTS.”?**

19 **A.** Yes. As stated above, the OUCC is using an estimate for a project that is not comparable  
 20 to the current Posey County Solar Project as a substitute for developing the “best estimate”  
 21 for this Project. The two deals cannot be compared. If CEI South were to pursue a 300  
 22 MWac project comparable to the Posey County Solar Project in today’s market, it would  
 23 be far more expensive and it is doubtful that any developer would provide the firm price  
 24 as was set forth in the original BTA that was negotiated and executed in 2020/2021.  
 25 Because of the firm purchase price and the fact that CEI South wanted to pass the  
 26 investment tax credit back to customers as quickly as possible, the Company proposed a

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panels entering the U.S. have been detained or have been subjected to additional tariffs. The U.S. Federal Government took these steps due to allegations that Chinese solar panels were made using forced labor. Furthermore, in March 2022 and April 2022, the Department of Commerce (“DOC”) investigated solar panel imports from Malaysia, Thailand, Vietnam, and Cambodia, due to allegations that Chinese solar panels were being resold by those countries. The DOC considered tariffs and applying the tariffs retroactively. In June 2022, President Biden prevented the enactment of new tariffs and eased solar panel importation... In July 2021, the price of solar modules reached an all-time low of \$0.31/watt and has increased to \$0.45/watt in September 2022, an increase of approximately 45%.” Cause No. 45839, OUCC’s Exh. No. 1 at 7-8 (footnotes omitted).

Levelized Rate in Cause No. 45501. Today, the purchase price is not firm and the Company can use the traditional ratemaking process in a manner that similarly benefits customers due to the Project being eligible for the production tax credit. Still, as I discuss below, Petitioner’s evidence in Cause No. 45501 indicated that CEI South was going to incur an additional [REDACTED] million of Owner’s Costs, on top of the [REDACTED] million “firm” BTA Purchase price – meaning that the OUCC’s “best estimate” doesn’t even include sufficient Owners’ Costs under the original structure. As I discuss below, the contingency included in the Owner’s Cost in Cause No. 45501 was minimal, because the transaction did not include a potential for future price increases, which is not the case now.

10 **IV. THE PURCHASE PRICE FOR THE FORMER PROJECT SHOULD NOT BE A LIMIT**

11 **Q. DO YOU HAVE ANY OTHER CONCERNS REGARDING THE OUCC’S PROPOSED**  
 12 **[REDACTED] MILLION ESTIMATE BASED ON A 2020/2021 BTA PRICE?**

13 **A.** Yes. The OUCC is attempting to use the February 9, 2021 BTA purchase price as a limit  
 14 on the amount that CEI South can include in rate base, notwithstanding Ind. Code § 8-1-  
 15 8.5-6.5. To that end, Mr. Leader testifies:

16 The OUCC objects to some of the cost increases but recognizes that  
 17 unexpected changes have made other increases and the smaller capacity  
 18 unavoidable. However, the OUCC notes that both CEI South and Arevon  
 19 are aware of the market risks, including delays in the MISO interconnection  
 20 process, the DOC investigation’s impact on solar panel procurements, and  
 21 other supply chain issues. The updated BTA price should reflect these  
 22 risks, and *any allowed future project cost increases should be limited.*

23 OUCC Exh. 1 at 12, lines 6 through 12 (emphasis added). Mr. Leader similarly states  
 24 “without this decrease to CEI South’s estimate, the OUCC does not find it to be reasonable  
 25 for CEI South to continue with the Posey County Solar Project as other options may  
 26 become more competitive to pursue.”<sup>15</sup> In other words, the OUCC suggests the  
 27 Commission should now either disapprove the Posey County Solar Project or limit  
 28 “allowed future project cost increases” to [REDACTED] million.

29 **Q. DOES THE UPDATED PURCHASE PRICE REFLECT THE RISKS THAT MR. LEADER**  
 30 **MENTIONS IN THE QUOTE ABOVE?**

<sup>15</sup> OUCC Exh 1 at 4, lines 9 to 11.

1 A. Yes, but the OUCC inconsistently does not want to base the best estimate of the cost of  
2 the Posey County Solar Project on the updated purchase price reflecting those risks.  
3 Instead, the OUCC wants to base the best estimate of the purchase price on the original  
4 2021 BTA price. Because of the risks cited by Mr. Leader as well as the cost increases  
5 and market factors I describe in my direct and rebuttal testimony, the deal from 2021 no  
6 longer exists. Amending the BTA and purchase price as proposed by CEI South is in the  
7 best interest of Petitioner’s customers. If we had to restart this 3.5 year process with a bid  
8 from the 2022 RFP, we could be in a worse place with a potentially higher priced project  
9 that may not be as far along in MISO queue.

10 **Q. WOULD A LIMIT BASED ON ESTIMATES FROM CAUSE NO. 45501 JEOPARDIZE CEI**  
11 **SOUTH’S ABILITY TO MOVE FORWARD WITH THE PROJECT?**

12 A. Yes. The economic environment in which the Posey County Solar Project is being  
13 constructed has drastically changed since 2021 and CEI South believes the “best  
14 estimate” for the Posey County Solar Project is \$429 million. Accordingly, use of an  
15 unsupported lower estimate coupled with a limitation on “allowed future project cost  
16 increases” would impose material undue risk on the Company that could threaten the  
17 viability of the Project. That risk would be one-sided. To the extent the actual cost to  
18 complete the Posey County Solar Project is lower than \$429 million, CEI South would only  
19 reflect the actual cost of the Project in rates in accordance with Ind. Code § 8-1-8.5-6.5.

20 **Q. DO YOU HAVE ANY OTHER RESPONSE TO MR. LEADER’S SUGGESTION THAT**  
21 **OTHER “ALLOWED FUTURE PROJECT COST INCREASES SHOULD BE LIMITED?”**

22 A. In its Petition, CEI South specifically requested that the Commission’s Order in this Cause  
23 provide for “ongoing review of the Posey County Solar Project.” Accordingly, to the extent  
24 there were to be cost increases beyond those set forth in the estimate, those increases  
25 would be submitted to the Commission and the OUCC would have the opportunity to  
26 dispute them at that time.

27 **V. THE REVISIONS IN THE AMENDED & RESTATED BTA WERE DRIVEN BY MARKET**  
28 **CONDITIONS**

29 **Q. DO YOU AGREE WITH THE PORTION OF MR. LEADER’S STATEMENT QUOTED**  
30 **ABOVE THAT “UNEXPECTED CHANGES” MADE THE COST “INCREASES AND THE**  
31 **SMALLER CAPACITY UNAVOIDABLE”?**

1 A. Yes. However, OUCC Witness Krieger inconsistently testifies that the OUCC “expects  
 2 utilities to move forward on project construction in earnest upon receiving approval” and  
 3 “the developer could not meet price targets, but [CEI South] does not provide evidence as  
 4 to cause.”<sup>16</sup> Mr. Krieger’s testimony seems to contradict Mr. Leader and suggest  
 5 increases were not “unavoidable,” but that the Project could have been managed in a way  
 6 such that the developer would have begun constructing the Posey County Solar Project  
 7 as soon as the Order in Cause No. 45501 was issued on October 27, 2021, which is simply  
 8 not the case.<sup>17</sup> On October 20, 2021, one week before the Order was issued in Cause  
 9 No. 45501, Arevon notified CEI South that [REDACTED]  
 10 [REDACTED]  
 11 [REDACTED] or the reasons described on page 9 of Mr.  
 12 Leader’s testimony. This circumstance coupled with the impacts of the pandemic drove  
 13 Arevon’s engineering procurement and construction (“EPC”) up by approximately [REDACTED]  
 14 million. CEI South evaluated the circumstances and determined it was in the best interest  
 15 of its customers to work with Arevon to determine a path by which both parties could  
 16 complete the Posey County Solar Project and the transfer of the facility contemplated in  
 17 the original BTA. Modifying the Posey County Solar Project in a way that was  
 18 economically feasible for both parties required technical changes that took time – not  
 19 simply just negotiation of the Amended & Restated BTA. Among other things, the parties  
 20 agreed to reduce the size of the Posey County Solar Project from 300 MWac to 191 Mwac  
 21 and change the layout of the arrays.

22 In addition, prior to beginning the Amended & Restated BTA negotiation, [REDACTED]  
 23 [REDACTED]  
 24 [REDACTED]  
 25 [REDACTED]  
 26 [REDACTED]

27 [REDACTED] – please refer to Petitioner Exhibit No. 2, Attachment FSB-3  
 28 **(CONFIDENTIAL)** Third Amendment.

<sup>16</sup> OUCC Exh 3 at 5, lines 5 to 7, and at 7, lines 2 to 3.

<sup>17</sup> The Order in Cause No. 45501 was issued on October 27, 2021, but was not final until November 26, 2021.

1 **Q. MR. LEADER CLAIMS “MANY OF THE CAUSES OF PRICE INCREASES HAVE**  
 2 **STABILIZED OR DECREASED, SO THE COST ESTIMATE INCREASE IS CAUSED BY**  
 3 **ADDITIONAL OWNER’S COSTS AND PRE-WORK COSTS.” IS THAT ACCURATE?**

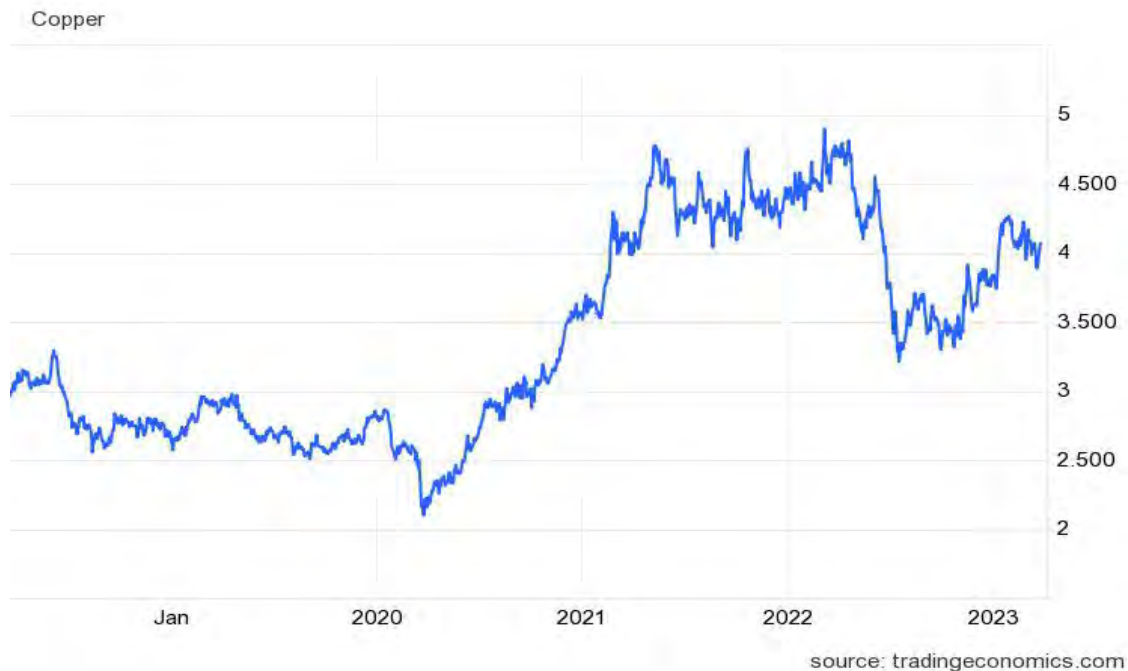
4 A. No. As I discuss below, Owner’s Costs and pre-work costs are a necessary component  
 5 of any project and the amounts Petitioner is proposing are reasonable and prudent.  
 6 Moreover, most of the causes of price increases have not stabilized and they certainly  
 7 have not returned to 2020/2021 levels. As Mr. Leader testified in his direct testimony,  
 8 shipping rates to the east and west coasts decreased from 2021 to 2022, but prices remain  
 9 volatile. The price change reflected in the Amended & Restated BTA is based on the  
 10 increased commodity costs. A February 22, 2023 Bloomberg Article titled “*Solar Industry*  
 11 *Facing Whiplash from Volatile Material Prices*”<sup>18</sup> noted that “the industry behind [solar  
 12 power] is facing unprecedented volatility as a battle for profits intensifies [and] [t]he roller-  
 13 coaster ride is best seen through the lens of polysilicon, the key material in solar panels.”  
 14 Module “prices fell more than 40% over the course of a few weeks starting in December,  
 15 and then rebounded more than 50% in less than a month,” as shown in the table below:



16 Moreover, contrary to Mr. Leader’s testimony in Cause No. 45786, copper prices have not  
 17 fallen. Trading Economics copper commodity pricing index shows that copper saw drastic  
 18 pricing increases starting in 2020, pricing decreases after April 2022, and then pricing

<sup>18</sup> <https://www.energyconnects.com/news/renewables/2023/february/solar-industry-facing-whiplash-from-volatile-material-prices/>

increases at the end of 2022. The index<sup>19</sup> also shows copper prices have continued to increase in 2023. Also, the trend below shows copper pricing well above pre-2020 pricing.



**Q. OUCC WITNESS KRIEGER TESTIFIES THAT THE DEVELOPER NOTIFIED CEI SOUTH SEVERAL WEEKS BEFORE THE COMMISSION APPROVED ITS ORDER IN CAUSE NO. 45501, BUT THAT THE OUCC IS “UNAWARE OF ANY NOTICE PROVIDED THE COMMISSION PRIOR TO ITS ISSUANCE OF THE FINAL ORDER, NOR DOES IT APPEAR THAT CEI SOUTH INFORMED THE COMMISSION OF THIS IN ITS SUBSEQUENT CLEAN ENERGY COST ADJUSTMENT (“CECA”).” HOW DO YOU RESPOND?**

**A.** As I stated in my direct testimony, “In mid-September 2021, Arevon informed CEI South that the cost to construct the Posey County Solar Project had increased [REDACTED] [REDACTED] Petitioner’s Exhibit No. 2, page 6, lines 26-28). While CEI South was provided notice a few weeks before the 45501 Order, it took CEI South time to evaluate the circumstances to determine whether the Project was still in the best interest to its customers and to continue to work with the developer to determine a path by which both parties could complete the Posey County Solar Project. By December 2021, both parties agreed to begin negotiations to amend the 2021 BTA (See Attachment FSB-3 (CONFIDENTIAL) Third Amendment in my direct

<sup>19</sup> <https://tradingeconomics.com/commodity/copper>

testimony). Since that time, CEI South has updated the Commission as to the status of the Generation Transition Plan in each of its requests for a CPCN. For example, in seeking approval of the Pike County Solar Project, I testified that due “to industry wide supply chain cost pressures, the Posey County Solar Project has now been downsized to approximately 191 MWac. CEI South intends to submit the amended BTA to the Commission for approval later this year.”<sup>20</sup>

Lastly, regarding Mr. Krieger’s comment that CEI South did not inform the Commission of this in its subsequent CECA proceedings, CEI South is required to report on the Posey County Solar Project within its annual CECA filings once the Project is under construction. Accordingly, the most appropriate place to include such information pre-construction was in CEI South’s requests for approval of its clean energy projects – which, CEI South has done.

**Q. IN THE SAME SECTION OF HIS TESTIMONY, MR. KRIEGER CONCLUDES “THUS, IT APPEARS THE INITIAL COST INCREASES PREVENTING THE CONSTRUCTION OF THE POSEY PROJECT AS ORIGINALLY PROPOSED WERE UNRELATED TO THE UFLPA.”<sup>21</sup> IS THAT ACCURATE?**

**A.** No. CEI South provided the OUCC with the Notice of Potential Delay that Arevon sent to the Company on October 20, 2021 prior the date the OUCC filed its testimony. That Notice specifically provides:



A large rectangular area of the document has been completely redacted with black ink, covering approximately 10 lines of text.

<sup>20</sup> Cause No. 45754, Pet. Exh. 2 at 6, lines 1 to 4.

<sup>21</sup> OUCC Exh 3 at 4, lines 18 to 20.



A copy of the Notice is attached hereto as Petitioner’s Exhibit No. 2-R, **Attachment FSB-R1 (CONFIDENTIAL)**. Accordingly, Mr. Krieger is incorrect in concluding that the delay and cost increase are unrelated to the UFLPA.

**VI. THE PROJECT REMAINS ECONOMICAL AND IT IS UNLIKELY OTHER OPTIONS MAY BECOME “MORE COMPETITIVE TO PURSUE”**

**Q. PLEASE EXPAND ON YOUR EARLIER STATEMENT INDICATING THAT YOU DISAGREE WITH OUCC WITNESS LEADER’S STATEMENT THAT WITHOUT THE “DECREASE TO CEI SOUTH’S ESTIMATE . . . OTHER OPTIONS MAY BECOME MORE COMPETITIVE TO PURSUE.”**

**A.** I am not aware of “other options” that are more competitive to pursue. The purchase price set forth in the Amended & Restated BTA is competitive with prices currently available in the market. The per kW purchase price (excluding Interconnection Costs) for the Posey County Solar Project under the Amended & Restated BTA is [REDACTED] which is [REDACTED] the average purchase price of comparable solar projects from the 2022 All-Source RFP of [REDACTED].<sup>22</sup> The final price of the Posey County Solar Project has the benefit of a fully negotiated Amended & Restated BTA, whereas proposal pricing, such as that shown for the 2022 All-Source RFP in **Attachment FSB-5 (CONFIDENTIAL)**, has proven to be more indicative than binding. Furthermore, I expect that looking for “other options” would result in only delay, potentially increase MISO costs and put CEI South at a risk for being short on capacity as discussed later in my testimony.

<sup>22</sup> See Petitioner’s Exhibit No. 2, **Attachment FSB-5 (CONFIDENTIAL)** attached to my direct testimony.



1 **Q. OUCC WITNESS LEADER CLAIMS “WHEN INTERCONNECTION COSTS ARE**  
 2 **ADDED, THE [REDACTED]**  
 3 **[REDACTED].”<sup>23</sup> IS THAT ACCURATE?**

4 A. No. Based on the calculation of interconnection costs Mr. Leader assumed, then the \$/kW  
 5 is slightly above the average of the projects in the RFP. However, CEI South’s response  
 6 to OUCC Data Request 3.1, attached to my rebuttal testimony as Petitioner’s Exhibit No.  
 7 2-R, Attachment FSB-R2 and provided to the OUCC after Mr. Leader’s testimony was  
 8 filed, demonstrates that Mr. Leader did not have all the relevant facts. Specifically, Mr.  
 9 Leader used the BTA purchase price [REDACTED]  
 10 [REDACTED] which resulted  
 11 in a marginally higher \$/kW ([REDACTED]) versus the average 2022 All-Source RFP of  
 12 [REDACTED]

13  
 14 However, Petitioner’s Exhibit No. 2-R, Attachment FSB-R2 indicates that a Generator  
 15 Interconnection Agreement (“GIA”) for the Posey County Solar Project recently has been  
 16 executed. The GIA is attached to my rebuttal testimony as Petitioner’s Exhibit No. 2-R,  
 17 **Attachment FSB-R3 (CONFIDENTIAL)**. The GIA reflects an expected interconnection  
 18 cost of approximately [REDACTED], which CEI South believes is the appropriate estimate  
 19 for interconnection facilities. As pointed out in the response to OUCC DR 3.1(e), the MISO  
 20 DPP 2019 Central Area Study Phase III Final Report Revision 2 dated March 22, 2023  
 21 reflects an expected interconnection cost of approximately [REDACTED] which includes  
 22 Affected System costs. Using [REDACTED] estimate, the total \$/kW calculation for the  
 23 Project is [REDACTED], which is well below the average 2022 All-Source RFP cost of  
 24 [REDACTED] as shown in Petitioner’s Exhibit No. 2-R, Attachment FSB-R4  
 25 **(CONFIDENTIAL)**.

26 **Q. WOULD THE ULTIMATE ESTIMATE FOR ANY OF THE BTA PROJECTS THAT MIGHT**  
 27 **BE SELECTED FROM THE 2022 ALL-SOURCE RFP REQUIRE THE INCURRENCE OF**  
 28 **OWNER’S COSTS?**

29 A. Yes. Owner’s Costs are a necessary component of any generation construction project.  
 30 As I discuss further in Section VII below, the Owner’s Costs CEI South is proposing in this  
 31 case are the same types of costs that have been approved in its other generation  
 32 proceedings and the estimates for each are reasonable. In Cause No. 45564, CEI South,

<sup>23</sup> OUCC Exh. 1 at 8, line 18, and at 9, line 1.

included Owner’s Costs of \$70 million for a proposed \$334 million Project. Here, CEI South’s total Owner’s Costs for a \$429 million project are approximately [REDACTED].

**VII. RESPONSE TO CRITICISMS OF OWNER’S COST ESTIMATE**

**Q. PLEASE SUMMARIZE THE OUCC’S RECOMMENDATION WITH RESPECT TO THE OWNER’S COSTS ESTIMATE.**

A. The difference between CEI South’s and the OUCC’s estimates for Owner’s Cost is shown in Petitioner’s Exhibit No. 2-R, Attachment FSB-R5 (CONFIDENTIAL). In summary, the OUCC is proposing the following adjustments:

Component	CEI South Estimate	OUCC Estimate	Difference
Internal Labor	[REDACTED]		
Contingency			
A&G			
GTA Allocation			

As I will discuss below, it would be imprudent to not include an appropriate amount for contingencies in a “best estimate” of the cost of construction of any one of the construction projects that might be selected from the 2022 All-Source RFP. In addition, as Petitioner’s Witness Behme testifies, the A&G and internal labor costs the OUCC proposes be removed are not duplicative of cost being recovered through rates and must be incurred in order to complete the Posey County Solar Project, or any like project. Likewise, Ms. Behme testifies that the GTA costs the OUCC proposes to eliminate were deferred pursuant to the FERC USOA and CEI South has requested and received approval from the Commission for projects that included similar allocated deferred planning costs and GTA allocated amounts.<sup>24</sup>

**Q. WHILE OUCC WITNESS LATHAM STATES THE OUCC DOES NOT “HAVE ANY ISSUES WITH PETITIONER’S [REDACTED] OWNER’S ENGINEER ESTIMATE OR ITS [REDACTED] LEGAL FEE ESTIMATE,”<sup>25</sup> OUCC WITNESS KRIEGER STATES: “AT [REDACTED]**

<sup>24</sup> See Order Cause No. 45564 (IURC 6/28/22) and Order Cause No. 45754 (IURC 1/11/23).

<sup>25</sup> OUCC Exh. 2 at 6, lines 10 to 12.

**PETITIONER SHOULD PROVIDE A SUMMARY OF THEIR EXPECTATIONS OF THE ENGINEER.”<sup>26</sup> HOW DO YOU RESPOND?**

A. Petitioner has conveyed its expectations to the Owner’s Engineer. As Mr. Games testified in Cause No. 45501, CEI South engaged Sargent & Lundy to serve as the Owner’s Engineer. Sargent & Lundy has extensive experience performing comprehensive project services for energy projects, including consulting, design, and implementation, as well as construction management, commissioning, and operations/maintenance. To the extent Mr. Krieger is recommending Petitioner provide a summary of its expectations of the Owner’s Engineer in this proceeding, I would reiterate Mr. Games’ testimony in Cause No. 45501:

**Q. What are the duties of an Owner’s Engineer?**

A. The Owner’s Engineer is tasked with representing the interests of the commissioning company by reviewing and commenting on contract terms and project design as well as monitoring contractors involved in construction of the project. The Owner’s Engineer is responsible for ensuring the technical and other contractors adhere to the project specifications. In addition, the Owner’s Engineer often assists with technology assessment and selection, contract negotiation, project plan execution, review of contractor costs and progress, and support of plant testing and startup, among other tasks.<sup>27</sup>

**Q. OUCC WITNESS KRIEGER STATES “IS MY UNDERSTANDING THE LEVELIZED RATE CEI SOUTH PROPOSED IN CAUSE NO. 45501 [REDACTED] [REDACTED] . . . , WHICH IS SIGNIFICANTLY LESS THAN HALF THE \$ [REDACTED] MILLION REQUESTED HERE.”<sup>28</sup> DID CEI SOUTH’S LEVELIZED RATE IN CAUSE NO. 45501 ASSUME ANY LEVEL OF OWNER’S COSTS?**

A. No. In Cause No. 45501, CEI South proposed to use a Levelized Rate to recover the cost of the original Posey County Solar Project that was based on prices per kWh that could be obtained per kWh under comparable PPAs. At the time, CEI South believed a Levelized Rate could be used to recover the cost of the Project because it was designed to be a “firm” purchase price agreement, inclusive of “all interconnection and various other development costs that could escalate between now and the closing date.”<sup>29</sup> Of course, as discussed above, as well as in my direct testimony and Mr. Leader’s testimony, the

<sup>26</sup> OUCC Exh. 3 at 6, line 16 to 17.

<sup>27</sup> Cause No. 45501, Pet. Exh. 3 at 7, lines 14 to 21.

<sup>28</sup> OUCC Exh. 3 at 5, lines 17 to 19.

<sup>29</sup> Cause No. 45501, Pet. Exh. 2 at 17, lines 21 to 22.

market changed dramatically in late-2021 and 2022. Those circumstances would make obtaining a “firm” price agreement today either impossible or very expensive because most developers would not accept such a risk.

In Cause No. 45501, CEI South performed a “reality check” of its Proposed Levelized Rate to ensure the Company would be fairly compensated for its investment (assuming the then-current capital and O&M costs were accurate) and the Levelized Rate would be fair to customers. CEI South presented Petitioner’s Exhibit No. 6, Attachment JMM-1 (CONFIDENTIAL) calculating the expected compensation that would result from the application of the Levelized Rate. That attachment, which Mr. Krieger attached to his testimony in this case as OUCC Confidential Attachment GLK-1, reflects that CEI South included Owner’s Cost of [REDACTED] million in its “reality check” of the Levelized Rate. That [REDACTED] million included only a nominal amount of contingency, because the price of the project was designed to be “firm.” That is not the case here. Moreover, in Cause No. 45501, a Levelized Rate was used in order to share the investment tax credit with customers – which now is possible with the production tax credit and traditional ratemaking. Given the volatility in the market for solar facilities, the Amended & Restated BTA recognizes [REDACTED].

**Q. DOES THE OUCC’S ESTIMATE OF [REDACTED] INCLUDE THE [REDACTED] MILLION OF OWNER’S COSTS USED IN ATTACHMENT JMM-1 IN CAUSE NO. 45501?**

A. No, it does not. The total estimate of depreciable rate base in Cause No. 45501 was [REDACTED]. The OUCC’s “estimate” in this case is simply the BTA purchase price.

**Q. DID THE OWNER’S COST USED IN ATTACHMENT JMM-1 IN CAUSE NO. 45501 INCLUDE THE [REDACTED] MILLION OF GTA COSTS?**

A. Yes.

**VIII. RESPONSE TO OUCC’S CONTINGENCY “ESTIMATE”**

**Q. HOW DID THE OUCC DEVELOP ITS CONTINGENCY “ESTIMATE”?**

A. The OUCC’s estimate for contingency is a plug developed to arrive at a cumulative estimate equivalent to the BTA purchase price for the Posey County Solar Project in Cause No. 45501. In discovery, CEI South asked the OUCC how its contingency estimate was developed and the OUCC confirmed the contingency “estimate” was simply backed

into by subtracting the costs the OUCC “accepted” in this case from the original BTA purchase price. A copy of the OUCC’s response to CEI South Data Request 1.4 is attached as Petitioner’s Exhibit No. 2-R, Attachment FSB-R6 (CONFIDENTIAL).

**Q. IN YOUR OPINION, IS THE OUCC’S PROPOSED [REDACTED] MILLION A REASONABLE AMOUNT OF CONTINGENCY FOR A \$429 MILLION PROJECT?**

A. No. The OUCC’s contingency “estimate” amounts to only slightly more than 1% of the cost of the Posey County Solar Project. In my experience, that is an unreasonable amount of contingency to be used in developing the “best estimate” for a project of this magnitude. The amount of contingency Petitioner included in its estimate in this case is consistent with the contingency estimate used in connection with the approval of two new natural gas combustion turbines (“CTs”) in Cause No. 45564. In that case, CEI South, included Owner’s Costs of \$70 million for a proposed \$334 million Project. Here, CEI South’s total Owner’s Costs for a \$429 million project are approximately [REDACTED] million.

**Q. WHY DO YOU BELIEVE IT IS IMPORTANT THAT A REASONABLE AMOUNT OF CONTINGENCY BE INCLUDED IN THE COST ESTIMATE?**

A. Including a reasonable amount of contingency is standard in the industry and extremely useful, especially in today’s volatile market to establish a buffer to absorb reasonable, yet unidentified or unknown changes that could add to the cost of the project. It helps avoid expending unnecessary time, money, and resources to redo the process of requesting approval for cost recovery from the Commission in case of foreseeable changes in the cost of the project. As with CEI South’s other generation transition projects, the Posey County Solar Project is complex and carrying contingency to give flexibility to deal with the complexities is a standard practice. For another example of how contingency is used in estimating the cost of complex projects, please see Pet.’s Ex. No. 2, Direct Testimony of Wayne Games in Cause No. 45564, Table WDG-4.

**Q. IN CONTRAST TO THE ORIGINAL FIRM PRICE BTA, [REDACTED] [REDACTED] [REDACTED] ?**

A. Given the uncertainty in the market, the Amended & Restated BTA provides that on or before June 30, 2023, Arevon must provide CEI South with [REDACTED] [REDACTED] [REDACTED]

████████████████████. ██████████ will represent approximately ██████ of the total cost of the Posey County Solar Project.

Again, CEI South hopes that [REDACTED] costs go down, the purchase price is reduced and the final amount included in Petitioner's rate base is less than the estimated \$429 million. However, it would be imprudent to derive a "best estimate" based on a hope that prices go down. [REDACTED] were included as part of the "firm" original project price and [REDACTED]

[REDACTED] As discussed below, I expect these costs to remain within the [REDACTED] estimate (or even come in under that estimate), but until the project is completed, CEI South cannot be certain.

**Q. HAS THE COMMISSION RECOGNIZED THE IMPORTANCE IN INCLUDING A REASONABLE AMOUNT OF CONTINGENCY IN THE BEST ESTIMATE OF THE COST OF A PROJECT?**

A. Yes. For instance, in CEI North's gas TDSIC Order, the Commission held:

the Commission has consistently found the inclusion of contingency to be appropriate and rejected similar arguments made by the OUCC. See e.g., *N. Ind. Pub. Serv. Co.*, Cause No. 45330 at p. 23 (IURC July 22, 2020) (finding inclusion of contingency is consistent with the AACE system and industry practice and establishes the best cost estimate required by the TDSIC Statute); *N. Ind. Pub. Serv. Co.*, Cause No. 45183 at p. 19 (IURC Sept. 4, 2019) (finding the inclusion of contingency in cost estimates is appropriate). . . .

Cause No. 45611 (April 20, 2022) at 16. Likewise, in connection with an Indiana Michigan Power Company project relating to improvements at the Cook Nuclear Plant, the Commission held:

We agree that contingency is a necessary element of a complete project cost estimate and routinely included in major construction projects approved by the Commission. See, e.g., *Northern Indiana Public Service Company*, Cause No. 43913 at 9-12 (IURC Dec. 29, 2010); *Duke Energy Indiana, Inc.*, Cause No. 44217 at 12, 29 and 35-36 (IURC April 3, 2013). The evidence demonstrates that an amount of \$220 million for

management reserve is reasonable given the magnitude and complexity of the project. We also reject the argument that we should consider either indirect costs or potential sub-project cost savings as additional layers of contingency. Indirect costs are real costs related, but not directly applied, to a construction project. We also find that the OUCC's concern about changes in sub-project scope and corresponding uses of management reserve, can be addressed adequately through the ongoing review proceedings.

Cause No. 44182 (July 17, 2013) at 58.

**Q. MR. KRIEGER SUGGESTS THE AMOUNT OF CONTINGENCY CEI SOUTH INCLUDED IS “UNREASONABLE GIVEN THE MATURITY OF THE PROJECT.”<sup>30</sup> HOW DO YOU RESPOND?**

A. I disagree. Initially, it is unclear what Mr. Krieger means by “maturity” and note that Mr. Krieger inconsistently states that he is concerned as to “whether the cost of interconnection and transmission requirements are fully understood and whether they are accurately reflected in this request.”<sup>31</sup> CEI South has gone to great lengths to involve consultants with technical and commercial expertise to develop its cost estimate. In developing the [REDACTED] % contingency estimate, CEI South consulted with its Owner’s Engineer, Sargent & Lundy, which has significant experience in the solar industry. According to Sargent & Lundy, the estimate for the Posey County Solar Project should be considered a Class 3 estimate based on the Association for the Advancement of Cost Engineering (“AACE”) Cost Estimate Classification System. A Class 3 estimate has project definition in the 10% - 40% range with an estimate range of -20% to +30%.

**Q. IN PROPOSING A CONTINGENCY AMOUNT OF APPROXIMATELY 1% OF THE PROJECT COST, DID THE OUCC CONSIDER THE FACT THAT THE FINAL PRICE OF THE POSEY COUNTY SOLAR PROJECT IS NOT FIRM?**

A. Apparently not. CEI South asked the OUCC to provide any and all support for the statement that “[REDACTED]”<sup>32</sup> The OUCC responded, in part:

The Posey County Solar Project was originally proposed to the IURC in February of 2021 as a 300 MWac project in Cause 45501. It was amended 2 years later in this proceeding where it was downsized to 191 MWac.

<sup>30</sup> OUCC Exh. 3 at 6, line 4.

<sup>31</sup> OUCC Exh. 3 at 9, lines 8 to 10.

<sup>32</sup> OUCC Exh. 3 at 6, lines 3 to 4.

1 Based on Mr. Krieger’s experience, a project in development for over 2  
2 years should be mature and not require a [REDACTED].  
3

4 Also, as cited in Mr. Krieger’s Direct Testimony, the Commission’s Order in  
5 45501 noted “The firm purchase price for the Posey County Solar Project  
6 is confidential but was shared confidentially by Mr. Bradford in his direct  
7 testimony.” Since Mr. Bradford characterized the previous Posey County  
8 Solar Project as firm, Mr. Krieger relied on that statement when considering  
9 the maturity level of the project.

10 The OUCC’s full response to CEI South’s Data Request 1.4 is attached as Petitioner’s  
11 Exhibit No. 2-R, Attachment FSB-R6 (CONFIDENTIAL). In other words, Mr. Krieger is  
12 proposing a 1% contingency based on the assumptions that: (1) this is the exact project  
13 as proposed in Cause No. 45501 which has been “in development for over 2 years,” which  
14 is not the case; and (2) like the project in Cause No. 45501, the price is firm, which also is  
15 not the case.

16 **IX. INTERCONNECTION COSTS**

17 **Q. MR. KRIEGER STATES THAT HE “RECOGNIZE[S] THAT THE REQUESTED**  
18 **INTERCONNECTION COSTS ARE DIRECTLY TIED TO THE BTA CONTRACTUAL**  
19 **CHANGES, SO I AM NOT RECOMMENDING THEIR DENIAL. HOWEVER, IT IS**  
20 **DISAPPOINTING THAT CEI SOUTH PORTRAYED INTERCONNECTION COSTS TO**  
21 **NOT BE AN ISSUE WITH THE PROJECT’S COMPLETION IN CAUSE NO. 45501.”<sup>33</sup>**  
22 **HOW DO YOU RESPOND?**

23 **A.** Mr. Krieger’s testimony appears to misunderstand the original BTA approved in Cause  
24 No. 45501. As I indicated previously, the original BTA for the Posey County Solar Project  
25 was contemplated as a “firm purchase price of [REDACTED] [that] covers all  
26 interconnection and various other development costs that could escalate between now  
27 and the closing date.”<sup>34</sup> As indicated in my direct testimony, “the Posey Project would be  
28 fully developed, engineered, procured, and constructed by Capital Dynamics and then  
29 acquired by CEI South in a transfer of the Project Company, Posey Solar CEI, LLC – a  
30 special purpose entity established to facilitate ownership of the Posey County Solar  
31 Project.”<sup>35</sup>

<sup>33</sup> OUCC Exh. 3 at 8, lines 7 to 10.

<sup>34</sup> Cause No. 45501, Pet. Exh. 2 at 17, lines 21 to  
22. <sup>35</sup> Pet. Exh. 2 at 5, lines 4 to 8.



Accordingly, from CEI South’s perspective, interconnection costs were not an issue because the “firm” purchase price of [REDACTED] included those costs. That is not the case under the Amended & Restated BTA, which separates interconnection costs from the other cost of development. The purchase price under the Amended & Restated BTA has been modified to [REDACTED] [REDACTED]). Interconnection costs will be [REDACTED] [REDACTED].

**Q. DOES THE FACT THAT THE ORIGINAL BTA DID NOT INCLUDE A SPECIFIC AMOUNT FOR INTERCONNECTION COSTS MEAN THAT THEY WERE NOT INCLUDED IN THE COST OF THE PROJECT OR OVERLOOKED BY CEI SOUTH OR THE DEVELOPER AS MR. KRIEGER SEEMS TO BE SUGGESTING?**

A. No. When the original BTA was executed on February 9, 2021, final interconnection costs were not available. However, Arevon expected to incur approximately [REDACTED] for interconnection costs. Accordingly, the original purchase price of [REDACTED] included approximately [REDACTED] of interconnection costs. In essence, very little has changed with respect to the amount of interconnection costs to be incurred.

**Q. IN OTHER WORDS, IS MR. KRIEGER CORRECT THAT INTERCONNECTION COSTS HAVE [REDACTED] ?**

A. No. Contrary to Mr. Krieger’s testimony, the estimate for interconnection cost assumption has remained almost the same from February 2021 to now.

**Q. MR. KRIEGER EXPRESSES SOME UNCERTAINTY AS TO WHETHER THE POSEY COUNTY SOLAR PROJECT IS PROJECT J1308 OR J12970 IN THE MISO QUEUE. WHICH OF THOSE IS THE PROJECT NUMBER FOR THE POSEY COUNTY SOLAR PROJECT?**

A. The Posey County Solar Project is Project Number J1308.

**Q. MR. KRIEGER STATES THAT MISO REFLECTS RESPONSIBILITIES FOR MITIGATING SYSTEM IMPACTS TOTALING \$14.5 MILLION OF NETWORK UPGRADES FOR PROJECT J1308 AND HE IS CONCERNED AS TO “WHETHER THE COST OF INTERCONNECTION AND TRANSMISSION REQUIREMENTS ARE FULLY**

**UNDERSTOOD AND WHETHER THEY ARE ACCURATELY REFLECTED IN THIS REQUEST.”<sup>36</sup> HOW DO YOU RESPOND?**

A. First, I would note that the Interconnection Facilities Transmission Operator Network Upgrades estimate (\$14,508,553) shown in both MISO DPP 2019 Central Area Study Phase III Final Report Revision 1 & Revision 2 is incorrect – the accurate estimate is [REDACTED] per the executed Generation Interconnection Agreement (“GIA”), which is attached hereto as Petitioner’s Exhibit No. 2-R, Attachment FSB-R3 (CONFIDENTIAL). Those Network Upgrade costs are necessary to connect the Posey County Solar Project to the MISO transmission system. However, importantly, those Network Upgrades were contemplated in the development of the approximately [REDACTED].

**Q. DO YOU BELIEVE THERE IS A REASON FOR CONCERN THAT THE COST OF INTERCONNECTION AND TRANSMISSION REQUIREMENTS IS NOT FULLY UNDERSTOOD AND COULD EXCEED THE [REDACTED] [REDACTED]?**

A. No. Based on the executed GIA and MISO’s DPP 2019 Central Area Study Phase III Final Report Revision 2 dated March 30, 2023, the expected interconnection cost is approximately \$[REDACTED]. In fact, based on my previous comment, CEI South is optimistic [REDACTED].

**X. INTERMITTENT NATURE OF POSEY COUNTY SOLAR PROJECT AND NEED TO ADDRESS CAPACITY SHORTFALL**

**Q. MR. KRIEGER STATES THAT BECAUSE THE POSEY COUNTY SOLAR PROJECT IS DEPENDENT ON WEATHER CONDITIONS, IT IS “CONSIDERED INTERMITTENT”<sup>37</sup> AND “CEI SOUTH DOES NOT DISCUSS THIS RISK IN ITS REQUEST FOR APPROVAL OF THE POSEY COUNTY SOLAR PROJECT.”<sup>38</sup> HOW DO YOU RESPOND?**

A. The fact that the Posey County Solar Project is an intermittent resource was discussed at length in Case No. 45501 and even more so in Cause No. 45564, in which the Commission

<sup>36</sup> OUCC Exh. 3 at 9, lines 8 to 10.

<sup>37</sup> OUCC Exh. 3 at 9, line 21.

<sup>38</sup> OUCC Exh. 3 at 9, lines 23 to 24.

approved two new natural gas CTs to support renewable resources like this Project. In Cause No. 45564, the Commission noted that CEI South’s “Preferred Portfolio mapped a shift from a generating fleet of predominantly coal burning resources to one of intermittent renewable resources supported by gas generation to ensure reliability.”<sup>39</sup> The Commission found:

The flexible and controllable nature of the gas CTs will support the intermittent nature of the renewable generation in the Preferred Portfolio to ensure system reliability. We believe that this step of implementing the Preferred Portfolio, moving forward on the two CTs, is the best economic decision for CEI South’s customers. In addition, MISO, the operator of the electric grid in which CEI South is a participant, has indicated a system-wide need for controllable resources such as the CTs to ensure system reliability as more intermittent resources are added to the system.<sup>40</sup>

The Commission further concluded: “Due to the intermittency of the renewable resources in the Preferred Portfolio, resources with quick ramp capabilities are necessary to complement the addition of such intermittent resources to the system to ensure reliability.”<sup>41</sup>

**Q. YOU MENTIONED THE INTERMITTENT NATURE OF THE POSEY COUNTY SOLAR PROJECT ALSO WAS CONSIDERED IN CAUSE NO. 45501 EVEN BEFORE THE CTS WERE APPROVED. DID THE OUCC OFFER ANY TESTIMONY REGARDING THAT ISSUE?**

**A.** Yes. On page 17 of the Commission’s Order in Cause No. 45501, the Commission summarizes the testimony of OUCC Witness Dr. Peter Boerger as follows: “Dr. Boerger calculated the renewable energy penetration for Petitioner, including the proposed solar projects and the approved Troy solar project, to be about 21%. He testified this is a significant level of renewable penetration; however, this level of intermittent resources is reasonable as part of a diversified portfolio.” As noted above, since that time, CEI South has received approval to construct two dispatchable CTs that can be used to support the intermittent resources that have been approved by the Commission. In its Order in Cause No. 45501, the Commission found:

Through the Generation Transition Plan being implemented pursuant to the preferred portfolio, CenterPoint is or will be seeking Commission approval of several projects to replace retiring capacity. Petitioner projects these will include wind, CTs, solar, and solar plus storage. The Posey and Warrick

<sup>39</sup> Order in Cause No. 45564 at 16.

<sup>40</sup> *Id.* at 13.

<sup>41</sup> *Id.* at 18.

Projects represent 300 and 100 MWac, respectively, are part of Petitioner’s Generation Transition Plan, and include both ownership and PPA structures. CenterPoint’s evidence indicates the duration of its renewable generation commitments will be staggered at various lengths between 20 and 30 years. These factors are designed to diversify CenterPoint’s portfolio and to provide off ramps that enable Petitioner to react to changing circumstances and make appropriate changes in its resources.<sup>42</sup>

**Q. MR. KRIEGER CONCLUDES THAT THE POSEY COUNTY SOLAR PROJECT “WILL PROVIDE NEEDED ENERGY BUT FALLS SHORT OF THE CAPACITY REQUIREMENT IDENTIFIED IN CEI SOUTH’S IRP BECAUSE IT HAS BEEN DOWNSIZED FROM 300 MWAC TO 191 MWAC AND IT HAS BEEN DELAYED BY APPROXIMATELY TWO YEARS [AND] CEI SOUTH DOES NOT ADDRESS THIS SHORTFALL NOR ALTERNATIVES IN THIS REQUEST.”<sup>43</sup> HOW DO YOU RESPOND?**

**A.** I addressed this shortfall in my direct testimony noting that if CEI South would not have enough owned capacity or bilateral agreements to meet its MISO Planning Reserve Margin Requirement (“PRMR”) then CEI South would have to participate in the MISO Planning Resource Auction (“PRA”), which is an annual capacity auction where CEI South and other utilities can procure capacity to meet MISO’s resource adequacy requirements.

**XI. CONCLUSION**

**Q. WHAT DO YOU RECOMMEND TO THE COMMISSION?**

**A.** To reiterate my direct testimony, the Posey County Solar Project is a viable project with county permitting approval, site control obtained, an executed MISO GIA, and last but not least, competitive pricing given the current market conditions. Therefore, I recommend that the Commission approve the Posey County Solar Project and associated relief sought by Petitioner in this Cause and find that \$429 million represents the best estimate of the costs to construct and purchase the Posey County Solar Project. Estimating and capping the cost of the Project based on the purchase price set forth in the 2021 BTA as the OUCC proposes is inconsistent with Ind. Code § 8-1-8.5-6.5 and would jeopardize CEI South’s ability to undertake the Posey County Solar Project. I would note that in other cases, where CEI South has needed to modify the prices of PPAs due to current market conditions, the OUCC has acknowledged the factors driving the price increase and

<sup>42</sup> Order in Cause No. 45501 at 29.

<sup>43</sup> OUCC Exh. 3 at 10, lines 15 to 18.

1 concurred with the opinions of CEI South witnesses that “if CEI South were to obtain an  
2 equivalent PPA today, . . . a new PPA would be more expensive and experience a  
3 significant delay.”<sup>44</sup> The same would be true if CEI South were to attempt to enter into a  
4 comparable BTA. The components are the same. Accordingly, just like with a PPA, if CEI  
5 South were to attempt to obtain a comparable BTA today, the purchase price would likely  
6 increase, and any replacement project would not come on-line in sufficient time to meet  
7 the Company’s impending capacity needs.

8 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

9 **A.** Yes, at the present time.

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<sup>44</sup> Cause No. 45786, OUCC Exh. 1 at 4, lines 5 to 7.

## VERIFICATION

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

SOUTHERN INDIANA GAS AND ELECTRIC  
COMPANY D/B/A CENTERPOINT ENERGY  
INDIANA SOUTH



F. Shane Bradford  
Vice President, Power Generation Operations

4-23-23  
Date

Petitioner's Exhibit No. 2-R, **Attachment FSB-R1 (CONFIDENTIAL)**

Notice of Potential Delay

The foregoing Attachment is confidential and trade secret and is being provided under seal pursuant to the Docket Entry the Presiding Officers entered on March 1, 2023 granting preliminary confidential treatment to materials of the type contained in this Attachment.

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF SOUTHERN INDIANA GAS AND )  
ELECTRIC COMPANY d/b/a CENTERPOINT ENERGY INDIANA )  
SOUTH (“CEI SOUTH”) FOR AN ORDER: (1) AMENDING THE )  
COMMISSION’S OCTOBER 27, 2021 ORDER IN CAUSE NO. 45501 )  
PURSUANT TO IND. CODE § 8-1-2-72 TO AUTHORIZE CEI SOUTH )  
TO ENTER INTO AN AMENDED BUILD TRANSFER AGREEMENT )  
(“BTA”) TO ACQUIRE A SOLAR POWER ELECTRIC GENERATING )  
FACILITY IN POSEY COUNTY, INDIANA, THAT WILL HAVE AN )  
AGGREGATE NAMEPLATE CAPACITY OF APPROXIMATELY 191 )  
MEGAWATTS ALTERNATING CURRENT (“MWAC”) (THE )  
“POSEY COUNTY SOLAR PROJECT”) AND AMENDING THE )  
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY )  
GRANTED THEREIN ACCORDINGLY; (2) FINDING THE REVISED )  
COST OF THE POSEY COUNTY SOLAR PROJECT TO BE THE BEST )  
ESTIMATE OF THE COST FOR THE PROJECT; (3) FINDING THE )  
POSEY COUNTY SOLAR PROJECT CONTINUES TO BE A CLEAN )  
ENERGY PROJECT UNDER IND. CODE CH. 8-1-8.8; (4) APPROVING )  
ASSOCIATED RATEMAKING AND ACCOUNTING TREATMENT )  
FOR THE POSEY COUNTY SOLAR PROJECT PURSUANT TO IND. )  
CODE CH. 8-1-8.5 AND § 8-1-8.8-11; (5) AUTHORIZING CEI SOUTH )  
TO ACCRUE POST-IN-SERVICE CARRYING COSTS (“PISCC”) AND )  
DEFER DEPRECIATION, OPERATIONS AND MAINTENANCE )  
(“O&M”) AND PROPERTY TAX EXPENSES ASSOCIATED WITH )  
THE POSEY COUNTY SOLAR PROJECT; (6) IN THE EVENT THE )  
CPCN IS NOT GRANTED OR THE POSEY COUNTY SOLAR )  
PROJECT OTHERWISE IS NOT PLACED IN SERVICE, GRANTING )  
AUTHORITY TO DEFER, AS A REGULATORY ASSET, COSTS )  
ASSOCIATED WITH THE POSEY COUNTY SOLAR PROJECT FOR )  
FUTURE RECOVERY THROUGH RETAIL ELECTRIC RATES; (7) )  
PROVIDING FOR ONGOING REVIEW OF THE POSEY COUNTY )  
SOLAR PROJECT; (8) AUTHORIZING THE ESTABLISHMENT OF )  
DEPRECIATION RATES FOR THE POSEY COUNTY SOLAR )  
PROJECT; AND (9) APPROVING CONFIDENTIAL TREATMENT OF )  
THE BTA AND OTHER COMMERCIAL TERMS AND RELATED )  
CONFIDENTIAL INFORMATION. )

CAUSE NO. 45847

CENTERPOINT ENERGY INDIANA SOUTH’S RESPONSE TO INDIANA OFFICE  
OF UTILITY CONSUMER COUNSEL’S THIRD (3rd) SET OF DATA REQUESTS TO  
CENTERPOINT ENERGY INDIANA SOUTH

Southern Indiana Gas and Electric Company d/b/a CenterPoint Energy Indiana South (“Petitioner,” “CenterPoint Indiana South” or “Company”) pursuant to 170 IAC 1-1.1-16 and the discovery provisions of Rules 26 through 37 of the Indiana Rules of Trial Procedure, by its counsel,



hereby submits the following Objections and Responses to the Indiana Office of Utility Consumer Counsel's Third (3rd) Set of Data Requests to CenterPoint Indiana South which were served after 5:00 P.M. ET on March 27, 2023 ("Requests").

### **General Objections**

All of the following General Objections are incorporated by reference in the response to each of the Requests:

1. The responses provided to the Requests have been prepared pursuant to a reasonable and diligent investigation and search conducted in connection with the Requests in those areas where information is expected to be found. To the extent the Requests purport to require more than a reasonable and diligent investigation and search, Petitioner objects on grounds that they include an undue burden or unreasonable expense.

2. Petitioner objects to the Requests to the extent they seek documents or information which are not relevant to the subject matter of this proceeding and which are not reasonably calculated to lead to the discovery of admissible evidence.

3. Petitioner objects to the Requests to the extent they seek responses and information from individuals and entities who are not parties to this proceeding and to the extent they request the production of information and documents not presently in Petitioner's possession, custody or control. Petitioner further objects to the Requests to the extent they are (i) vague and ambiguous as to the individuals and entities to whom the Request refer, or (ii) overbroad and not reasonably calculated to lead to the discovery of relevant or admissible evidence. Accordingly, as used herein, "CenterPoint Indiana South" or "Petitioner" or "Company" shall have the meaning set forth in the opening paragraph of these Objections and Responses.

4. Petitioner objects to the Requests to the extent they seek an analysis, calculation, or compilation which has not already been performed and which Petitioner objects to performing.

5. Petitioner objects to the Requests to the extent they are vague and ambiguous and provide no basis from which Petitioner can determine what information is sought.

6. Petitioner objects to the Requests to the extent they seek information outside the scope of this proceeding, and as such, the Requests seek information not reasonably calculated to lead to the discovery of relevant or admissible evidence.

7. Petitioner objects to the extent the Requests purport to require production of (a) information in a particular format; (b) multiple copies of the same document; (c) additional copies of the same document merely because alterations, notes, comments, or other material appear thereon when such other material is not material or relevant; and (d) copies of the same information in multiple formats on the grounds that it is irrelevant, overbroad, unreasonably burdensome and not required by the Commission rules and inconsistent with practice in Commission proceedings.

8. Petitioner objects to the Requests to the extent they solicit copies of voluminous documents.

9. Petitioner objects to the Requests to the extent the discovery sought is unreasonably cumulative or duplicative; or is obtainable from some other source that is more convenient, less burdensome, or less expensive.

10. Petitioner objects to the Requests to the extent the burden or expense of the proposed discovery outweighs its likely benefit, taking into account the needs of the case, the amount in controversy, the parties' resources, the importance of the issues at stake in litigation, and the importance of the proposed discovery in resolving the issues.

11. Petitioner objects to the Request on the grounds that it is overbroad, unreasonably burdensome and seeks information that is largely irrelevant to the subject matter of this proceeding.

12. Petitioner objects to the Requests to the extent they seek information that is confidential, proprietary, competitively sensitive and/or trade secret.

13. The responses constitute the corporate responses of Petitioner and contain information gathered from a variety of sources. Petitioner objects to the Requests to the extent they request identification of and personal information about all persons who participated in responding to each data request on the grounds that it is overbroad, unreasonably burdensome and irrelevant given the nature and scope of the requests and the many people who may be consulted about them. Petitioner further objects to the Requests to the extent they purport to require identification of a witness who can answer questions regarding the substance of or origination of information supplied in each response on the ground that Petitioner has no obligation to call witnesses to testify as to information provided in discovery.

14. Petitioner objects to the Requests to the extent they seek information that is subject to the attorney-client, work product, settlement negotiation or other applicable privileges. Petitioner further objects to the Requests to the extent they purport to require the creation of a privilege log on the grounds that given the extremely expedited and informal nature of discovery in this proceeding, contemporaneous privilege logs are inappropriate. Petitioner objects to the Requests on the grounds they are unreasonably burdensome, overbroad, inconsistent with discovery practices in Commission proceedings and inconsistent with the informal discovery process applicable to this proceeding.

15. Petitioner assumes no obligation to supplement these responses except to the extent required by Ind. Tr. R. 26(E) (1) and (2) and objects to the extent the instructions and/or Requests purport to impose any greater obligation. Petitioner denies that Ind. Tr. R. 26(E)(3) applies to the Requests.

Subject to and without waiver of the general and specific objections set forth herein, Petitioner responds to the Requests in the manner set forth below.

### **Data Requests - Set 03**

**Q 3.1:** Please explain the following with respect to preferred portfolio transmission upgrade increases of \$11 million included in the 2019/2020 IRP:

- a. How many solar projects were included in the \$ 11 million of transmission upgrades<sup>1</sup>.
- b. Was it expected these costs would be sufficient to satisfy any MISO required transmission upgrades?
- c. What portion of the \$11 million transmission upgrades was expected for these solar projects?
- d. What was the expected cost of transmission upgrades for Posey County Solar Project as represented in Cause 45501.
- e. What is the expected cost of transmission upgrades for Posey County Solar Project as represented in this Cause 45847?
- f. Are there additional costs in addition to transmission costs to arrive at [REDACTED] interconnection costs in Cause 45847?
- g. If there are additional costs, please detail those costs.
- h. What is the added risk that potentially drives costs higher and creates the request for an additional [REDACTED] in interconnection costs to arrive at a [REDACTED]?
- i. The MISO DPP 2019 Central Area Study Phase III Final Report Revision 1 dated February 1, 2023, identifies a project, known as J1308, Solar, Southern Indiana Gas & Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc. Posey County, IN. ("J1308"). Is J1308 the project requested in Cause 45847?
- j. Are the Network Upgrades of \$14,508,553 required by MISO for project J1308 as identified in this report necessary to connect the Posey County Solar Project (Cause 45847) to MISO managed transmission lines?
- k. Are these Network Upgrades of \$14,508,553 included in the costs requested in Cause 45847?
- l. If these costs are not included, are the Owners Cost Contingency funds adequate to cover them and all current known risks?

**Objection:** Petitioner objects to the foregoing Data Request on the grounds that it is vague and ambiguous, particularly with respect to the questions set forth in subparts b, c, and g. Subpart b refers to unspecified "these costs," subpart c refers to "these solar projects" but only one solar project is at issue in this cause, and the reference to "additional costs" in subpart g appears to be asking about the potential for [REDACTED], but it is unclear based on the use of the undefined phrase "additional costs." Petitioner further objects to the foregoing Data Request on the grounds that it both discloses and seeks information that is confidential, proprietary, competitively sensitive and/or trade secret.

Subject to and without waiving the foregoing objections, Petitioner submits the following response subject to the Nondisclosure Agreement entered into between Petitioner and the OUCC. Confidential information is highlighted in green.

**Response:**

- a. These costs are not specific to a particular number of solar projects to be completed within a given portfolio evaluated in the 2019/2020 IRP. As described on page 196 of the

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<sup>1</sup> Cause No. 45501, Order, p. 24, para. 3.

- 2019/2020 IRP, “As the level of power imported from the MISO market increased due to the coal generation retirements, network upgrades were identified to increase the Vectren system import capability to suitable levels. These projects included the replacement of three transformers at an estimated cost of \$11 million and were needed for all non-CCGT cases, including the CT cases.” These costs were associated with moving from base load coal units at A.B. Brown to portfolios without a base load generator (CCGT or continue on coal).
- b. Please see 3.1a.
  - c. Please see 3.1a.
  - d. When the original BTA was executed in February of 2021, final interconnection costs were not available; however, the Developer expected approximately [REDACTED] for interconnection costs.
  - e. Based on MISO DPP 2019 Central Area Study Phase III Final Report Revision 2 dated March 22, 2023, the expected interconnection cost is approximately [REDACTED]. Please note, CEI South believes MISO is using an incorrect estimate for Interconnection Facilities. The Interconnection Facilities portion of the interconnection cost estimate is [REDACTED] as per the executed GIA (see 45847 – CONFIDENTIAL OUCC DR03.1(e) – Executed J1308 GIA).
  - f. [REDACTED] from Attachment FSB-4, Section 2.5(h) were based on the MISO DPP 2019 Central Area Study Phase III Draft Report Revision 2 dated January 18, 2023. See below:

Posey County Solar Project (J1308)	Estimated Costs
NRIS	[REDACTED]
ERIS - Affected Systems	[REDACTED]
Interconnection Facilities	[REDACTED]
<b>TOTAL</b>	[REDACTED]

- g. There are no additional interconnection costs assumed beyond the assumptions shown in 3.1(f). See also the response to subpart h.
- h. The Developer [REDACTED]  
[REDACTED]  
[REDACTED]. Based on MISO DPP 2019 Central Area Study Phase III Draft Report Revision 2 dated March 22, 2023, CEI South feels [REDACTED]. In fact, the Revision 2 Report indicates costs should be below the [REDACTED] as shown in response 3.1(e).
- i. Yes.
- j. The Interconnection Facilities TO Network Upgrades estimate (\$14,508,553) shown in both MISO DPP 2019 Central Area Study Phase III Final Report Revision 1 & Revision 2 is incorrect – the accurate estimate is [REDACTED] per the executed GIA (see 45847 – CONFIDENTIAL OUCC DR03.1(e) – Executed J1308 GIA). And yes, the TO Network Upgrades costs are necessary to connect to the MISO transmission system.
- k. The TO Network Upgrades cost in 3.1(j) is incorporated in the [REDACTED].
- l. See response to 3.1(k)

Dated: April 10, 2023

As to objections only,



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Petitioner's Exhibit No. 2-R, **Attachment FSB-R3 (CONFIDENTIAL)**

Executed Generator Interconnection Agreement

The foregoing Attachment is confidential and trade secret and is being provided under seal pursuant to the Docket Entry the Presiding Officers entered on March 1, 2023 granting preliminary confidential treatment to materials of the type contained in this Attachment.

Petitioner's Exhibit No. 2-R, **Attachment FSB-R4 (CONFIDENTIAL)**

2022 All-Source RFP Solar Pricing Summary (including correct interconnection costs)

The foregoing Attachment is confidential and trade secret and is being provided under seal pursuant to the Docket Entry the Presiding Officers entered on March 1, 2023 granting preliminary confidential treatment to materials of the type contained in this Attachment.



Petitioner's Exhibit No. 2-R, Attachment FSB-R5 (CONFIDENTIAL)

Summary of Differences between CEI South's Estimated Owner's Costs and the OUCC's Estimated Owner's Costs

The foregoing Attachment is confidential and trade secret and is being provided under seal pursuant to the Docket Entry the Presiding Officers entered on March 1, 2023 granting preliminary confidential treatment to materials of the type contained in this Attachment.

1.4 Referring to page 6, lines 3 to 4 of OUCC Witness Gregory Krieger's testimony:

- a. Please provide any and all support for the statement that "[REDACTED]".
- b. Please identify any and all other projects from his "previous experience" that Mr. Krieger considered in recommending his estimate for contingency of "[REDACTED]".
- c. Please provide any and all workpapers calculating Mr. Krieger's recommended [REDACTED] contingency and/or describe in detail how the number was derived.
- d. Identify all other solar products the OUCC is aware of in which the contingency amount was [REDACTED] or less of the cost of the project.

**Objection:** OUCC objects to this Request on the grounds and to the extent that this Request is unduly burdensome and calls for the compilation and production of voluminous materials. The OUCC further objects to this Request on the grounds and to the extent the Request solicits an analysis, calculation, or compilation which the OUCC has not performed and which the OUCC objects to performing. The OUCC further objects to this Request on the grounds and to the extent the Request seeks disclosure of confidential information. Notwithstanding the foregoing objection, the OUCC answers as follows:

**Response:** a. Mr. Krieger was an Engineering Project Manager, Capital Investment Analyst, Capital Planning Manager, and Program Manager for Cummins and Thomson S.A., where he evaluated and wrote capital appropriation requests, as well as implemented, managed, and overseen several dozen multi-million-dollar projects, in which he developed and managed contingency funds in those projects. In each case, contingency levels varied depending upon the maturity of the project and project estimates. However, mature projects often had little to no contingency.

The Posey County Solar Project was originally proposed to the IURC in February of 2021 as a 300 MWac project in Cause 45501. It was amended 2 years later in this proceeding where it was downsized to 191 MWac. Based on Mr. Krieger's experience, a project in development for over 2 years should be mature and not require a [REDACTED]

Also, as cited in Mr. Krieger's Direct Testimony, the Commission's Order in 45501 noted "The firm purchase price for the Posey County Solar Project is confidential but was shared confidentially by Mr. Bradford in his direct testimony." Since Mr. Bradford characterized the previous Posey County Solar Project as firm, Mr. Krieger relied on that statement when considering the maturity level of the project.

b. Mr. Krieger relied on his experience with Cummins in Strategy and Business development and Thomson S.A. as a Capital Investment Analyst and Capital Planning Manager. As Capital Planning Manager with Thomson, it was his responsibility to review significant capital investments for two product groups and 26 factories worldwide. He then presented his findings monthly to the Capital Investment Committee ("Committee") and prepared division executives for

their justification of investments before the Committee. During his tenure in those positions, he analyzed and presented several dozen capital investment projects.

Because of the extent of that over 30 years of experience, and because of confidentiality agreements, Mr. Krieger is unable to list any and all other projects.

c. The OUCC asserts that holding the Posey County Solar Project to the BTA price disclosed in Cause 45501 is reasonable for this project (Cause 45847), in spite of the 40% reduction in energy production.

As such, the calculation of allowed contingency was as follows:

Less Cause No. 45501 BTA =

Cause No. 45847 Purchase Price =

Difference between BTA and purchase price =

OUCC Accepted Cost

Remainder - Allowed Contingency

d. See objection.