

**STATE OF INDIANA**

**INDIANA UTILITY REGULATORY COMMISSION**

VERIFIED PETITION OF SOUTHERN INDIANA GAS AND )  
 ELECTRIC COMPANY d/b/a VECTREN ENERGY DELIVERY )  
 OF INDIANA, INC. (“VECTREN SOUTH”) FOR (1) ISSUANCE )  
 OF A CERTIFICATE OF PUBLIC CONVENIENCE AND )  
 NECESSITY FOR THE CONSTRUCTION OF A COMBINED )  
 CYCLE GAS TURBINE GENERATION FACILITY (“CCGT”); )  
 (2) APPROVAL OF ASSOCIATED RATEMAKING AND )  
 ACCOUNTING TREATMENT; (3) ISSUANCE OF A )  
 CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY )  
 FOR COMPLIANCE PROJECTS TO MEET FEDERALLY )  
 MANDATED REQUIREMENTS (“CULLEY 3 COMPLIANCE )  
 PROJECT”); (4) AUTHORITY TO TIMELY RECOVER 80% OF ) **CAUSE NO. 45052**  
 THE COSTS INCURRED DURING CONSTRUCTION AND )  
 OPERATION OF THE CULLEY 3 COMPLIANCE PROJECTS )  
 THROUGH VECTREN SOUTH’S ENVIRONMENTAL COST )  
 ADJUSTMENT MECHANISM; (5) AUTHORITY TO CREATE )  
 REGULATORY ASSETS TO RECORD (A) 20% OF THE )  
 REVENUE REQUIREMENT FOR COSTS, INCLUDING )  
 CAPITAL, OPERATING, MAINTENANCE, DEPRECIATION, )  
 TAX AND FINANCING COSTS ON THE CULLEY 3 )  
 COMPLIANCE PROJECT WITH CARRYING COSTS AND (B) )  
 POST-IN-SERVICE ALLOWANCE FOR FUNDS USED )  
 DURING CONSTRUCTION, BOTH DEBT AND EQUITY, AND )  
 DEFERRED DEPRECIATION ASSOCIATED WITH THE CCGT )  
 AND CULLEY 3 COMPLIANCE PROJECT UNTIL SUCH )  
 COSTS ARE REFLECTED IN RETAIL ELECTRIC RATES; (6) )  
 ONGOING REVIEW OF THE CCGT; (7) AUTHORITY TO )  
 IMPLEMENT A PERIODIC RATE ADJUSTMENT )  
 MECHANISM FOR RECOVERY OF COSTS DEFERRED IN )  
 ACCORDANCE WITH THE ORDER IN CAUSE NO. 44446; )  
 AND (8) AUTHORITY TO ESTABLISH DEPRECIATION )  
 RATES FOR THE CCGT AND CULLEY 3 COMPLIANCE )  
 PROJECT ALL UNDER IND. CODE §§ 8-1-2-6.7, 8-1-2-23, 8- )  
 1-8.4-1 ET SEQ, 8-1-8.5-1 ET SEQ., AND 8-1-8.8 -1 ET SEQ. )

**RESPONSE TO DOCKET ENTRY REQUEST DATED SEPTEMBER 19, 2018**

Southern Indiana Gas & Electric Company d/b/a Vectren South Delivery of Indiana, Inc. (“Vectren South”), by counsel, responds to the Commission’s Docket Entry Request dated September 19, 2018 as follows:

**Request No. 1:** Petitioner witness Retherford in direct and rebuttal testimony discussed the National Pollutant Discharge Elimination System permit for Brown (see rebuttal testimony footnote 5). Her description of the reopener provision identifies that the permit allows for modification based on a timely retirement announcement.

A. Please explain Petitioner's understanding of the availability of modifying the permit should a timely announcement be made that the units were to be refueled with natural gas rather than retired.

B. Has Petitioner engaged the Indiana Department of Environmental Management on such a modification being available to it?

**Response:**

A. The effluent limitations guidelines ("ELG") requirements apply to scrubber discharges and ash handling, so a refueling would be the same as a retirement. But the refueling would have to be done by 2023 absent an extension of the final ELG compliance deadline of December 31, 2023. The United States Environmental Protection Agency ("EPA") has not proposed extending this compliance deadline. Denying Vectren South the certificate of public convenience and necessity ("CPCN") to construct a new combined cycle gas turbine ("CCGT") and waiting for the results of the 2019 IRP could create a potentially significant problem in terms of leaving sufficient time to pursue likely replacements for Brown. Petitioner's Exhibit 4-R, Attachment WDG-3R demonstrates that insufficient time would exist to obtain necessary approvals and construct a replacement CCGT. There could be similar challenges with other alternatives.

B. Vectren has not specifically talked to IDEM about refueling as opposed to retirement, but the end point is still the same. If Vectren refuels with gas it is the same as "retirement" for purposes of ELG because Vectren would no longer have a scrubber discharge or handle fly/bottom ash.

**Request No. 2:** Petitioner witness Lind in rebuttal testimony discussed additional portfolios analyzed in response to the Indiana Office of Utility Consumer Counselor inquiries.

A. Please provide additional analysis and results for the following variations of these rebuttal portfolios. Regarding portfolio No. 1, please rerun the analysis modified such that Culley 2 is retired in 2023 and the Broadway 2 unit is refurbished and retained throughout the planning period. In an additional analysis, further modify the scenario such that the removal of Warrick 4 and addition of the simple cycle gas turbine are delayed by 4 years. If time allows, rerun with an altered delay period to 2 years.

B. Regarding portfolio No. 3, please rerun the analysis modified such that Brown 1 is also converted to natural gas, and the removal of Warrick 4 and addition of the 1x1 CCGT are delayed by 4 years. If time allows, rerun with an altered delay period to 2 years. Finally, with Brown 1 also converted to natural gas, rerun with Warrick 4 removed in 2023, but the 1x1 CCGT delayed 2 years and capacity purchased from the market as necessary.

**Response:**

The confidential tables attached to this answer restate the information set forth on page 9 of Petitioner's Exhibit 6-R and add the additional scenarios requested by the Commission's Docket Entry. The confidential excel files are also provided. The results are presented under Vectren South's original modeling, which assumed sharing wholesale power margins equally with customers (as currently approved) and Vectren South's revised position on rebuttal, which is if the preferred portfolio is approved, complete with the firing capability that will allow 150 MW of peaking capacity, Vectren South would pass 100% of wholesale power margins through to customers.


All of the additional modifications requested by the Docket Entry cause increases to the net present value of the portfolio being modified. In other words, none of these additional portfolios would change the conclusion as stated by Mr. Lind on rebuttal that the seven portfolios which had the lowest net present values share the one common characteristic of the retirement of the A.B. Brown Generating Station by 2024 and the construction of a 700-890 MW CCGT in its place.

In addition, the results of the additional scenarios present risk not factored into the modeling. First, those scenarios which rely on extending the life of Warrick Unit 4 beyond 2023 may be understating Vectren South's capital investment by as much as \$50 million (total, and not just Vectren's share). Warrick Unit 4 is currently operating under a variance which allows it to discharge wastewater at a higher temperature than allowed under its existing NPDES permit. That variance is at risk based on the draft NPDES permit renewal for the Warrick/Alcoa facility which has been posted to IDEM's website for public comment. Instead, the NPDES permit renewal to be issued for Warrick Unit 4 is expected to include a reopener clause that would allow IDEM to terminate the variance at any time, with particular risk at the time of the next renewal in 2023 that follows the pending renewal. Termination of the variance would likely require the construction of a cooling tower at a cost to Vectren South of \$20-\$30 million. Given Alcoa's ability to terminate the joint operating agreement as explained in Mr. Chapman's rebuttal testimony (Confidential pages 18-19), the need for large incremental investments to Warrick Unit 4 could drive termination of the joint operation and the stranding of additional unit investments.

Second, and as explained in Mr. Lind's rebuttal, the NPV for the preferred portfolio is stated at a +/- 10% cost estimate. This is especially important when comparing to Brown conversion scenarios. The Brown conversion scenario costs are stated at +/- 50%. Given the condition of Brown as a result of the corrosive conditions from the dual alkaline scrubbers as explained by witness Games, it can reasonably be anticipated that costs of conversion of Brown to gas and then relying on the existing Brown units for many more years could likely exceed the estimates by a material amount as further repairs and replacements are required.

With that backdrop, the results are attached.

Respectfully submitted,



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## CERTIFICATE OF SERVICE

The undersigned hereby certifies that Vectren South's Response to Docket Entry Request Dated September 19, 2018 was served via electronic transmission to:

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this 3rd day of October, 2018.



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**(ATTACHMENTS ARE CONFIDENTIAL)**