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., FOR: (1) AUTHORITY TO CONSTRUCT, OWN AND OPERATE A SOLAR ENERGY PROJECT AND A FINDING THAT SUCH PROJECT CONSTITUTES A CLEAN ENERGY PROJECT PURSUANT TO IND. CODE CH. 8-1-8.8; (2) ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION OF THE SOLAR ENERGY PROJECT PURSUANT TO IND. CODE CH. 8-1-8.5; AND (3) AUTHORITY TO TIMELY RECOVER COSTS INCURRED DURING CONSTRUCTION AND OPERATION OF THE PROJECT IN ACCORDANCE WITH IND. CODE § 8-1-8.5-6.5. AND IND. CODE § 8-1-8.8-11.	)	**CAUSE NO. 45086** **APPROVED:**

ORDER OF THE COMMISSION

Presiding Officers:
David E. Ziegner, Commissioner
David E. Veleta, Senior Administrative Law Judge

On May 4, 2018, Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc. (Petitioner, Vectren South, or the Company) filed a Verified Petition with the Indiana Utility Regulatory Commission (Commission) seeking an Order: (1) authorizing Vectren South to construct, own, and operate a solar energy facility and finding such facility constitutes a "clean energy project" pursuant to Ind. Code § 8-1-8.8-11; (2) issuing a Certificate of Public Convenience and Necessity (CPCN) for the solar energy facility pursuant to Ind. Code ch. 8-1-8.5; and (3) authorizing Petitioner to timely recover costs incurred during the construction and operation of the project in accordance with Ind. Code § 8-1-8.5-6.5 and Ind. Code § 8-1-8.8-11. Petitioner contemporaneously filed the direct testimony and attachments of the following witnesses in support of its Verified Petition:

- Wayne D. Games, Vice President Power Supply,
- Matthew R. Brinkman, P.E., Solar Business Unit Manager, Burns & McDonnell,
- Thomas L. Bailey, Director of Industrial Sales & Economic Development, Vectren Utility Holdings, Inc. (VUHI), and

- J. Cas Swiz, Director, Rates and Regulatory Analysis for VUHI.

Also on May 4, 2018, Petitioner filed a *Motion for Protection and Nondisclosure of Confidential and Proprietary Information* (Motion) in this Cause. In its Motion, Petitioner indicated certain information (Confidential Information) that it intended to submit in this matter contains trade secrets as that term is defined under Ind. Code § 24-2-3-2. The Presiding Officers by Docket Entry dated May 17, 2018, found there was a sufficient basis for a determination that the Confidential Information should be held as confidential by the Commission on a preliminary basis. Petitioner submitted the confidential materials in accordance with the terms of the Docket Entry on May 18, 2018.

On August 13, 2018, Alliance Coal, LLC (Alliance Coal) filed a *Petition to Intervene*, which the Presiding Officers granted by Docket Entry dates August 24, 2018. Citizens Action Coalition of Indiana, Inc. (CAC) filed a *Petition to Intervene* on August 22, 2018.

On September 4, 2018, the Indiana Office of Utility Consumer Counselor (OUCC) filed the direct testimony and attachments of the following witnesses:

- John E. Haselden, Senior Utility Analyst-Engineer, Electric Division, and[1]
- Kaleb G. Lantrip, Utility Analyst, Electric Division.

Also on September 4, 2018, Alliance Coal filed the direct testimony and attachments of Charles S. Griffey, Energy Consultant. On September 6, 2018, CAC filed the direct testimony and attachments of its Executive Director, Kerwin L. Oslon.[2]

On September 18, 2018, Petitioner filed the rebuttal testimony and attachments of the following witnesses:

- Wayne D. Games,
- Matthew R. Brinkman, P.E.,
- Peter J. Hubbard, Manager, Pace Global,
- Thomas L. Bailey,
- Justin M. Joiner, Director of Regulatory Policy and MISO Affairs, and
- J. Cas Swiz.

[1] On September 5, 2018, the OUCC filed the *Indiana Office of Utility Consumer Counselor's Motion to Substitute Public Version of Public's Corrected Exhibit No. 1 (Redacted)*. The OUCC requested leave to submit a substitute public version of the corrected testimony of OUCC witness John Haselden. The Presiding Officers granted the OUCC's motion by Docket Entry dated September 10, 2018.

[2] On September 18, 2018, CAC filed an *Unopposed Motion to Extend Filing Date of CAC by Two Days* requesting an extension of time, up to and including September 6, 2018, in which to file its direct testimony and exhibits. The Presiding Officers granted CAC's motion by Docket Entry dated September 19, 2018.

Also on September 18, 2018, CAC filed the cross-answering testimony of Kerwin L. Olson.

On October 10, 2018, Petitioner, the OUCC, and CAC (collectively, the Settling Parties) jointly submitted a Stipulation and Settlement Agreement (Settlement Agreement) resolving all matters raised in this proceeding as among those parties. Also on October 10, 2018, Petitioner filed the supplemental testimony of Thomas L. Bailey in support of the Settlement Agreement. On October 11, 2018, Petitioner filed the supplemental testimony of J. Cas Swiz in support of the Settlement Agreement, and the OUCC filed the testimony of Cynthia M. Armstrong in support of the Settlement Agreement.

On October 25, 2018, Alliance Coal submitted the testimony of Charles S. Griffey in opposition to the Settlement Agreement. On November 1, 2018, Petitioner filed the rebuttal testimony of Wayne D. Games in response to Mr. Griffey's testimony opposing the Settlement Agreement, and the OUCC filed rebuttal testimony of Cynthia M. Armstrong.

A public evidentiary hearing was held in this Cause at 9:30 a.m. on November 19, 2018, in Hearing Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana. Vectren South, the OUCC, CAC, and Alliance Coal appeared at and participated in the hearing and their respective evidence was admitted into the record without objection. No members of the general public attended the hearing.

Based on the applicable law and the evidence presented, the Commission finds:

1. Notice and Commission Jurisdiction. Notice of the evidentiary hearing in this Cause was given and published by the Commission as required by law. Vectren South is a public utility and an eligible business as defined in Ind. Code §§ 8-1-2-l(a) and 8-1-8.8-6. The Commission has jurisdiction to approve Petitioner's request for construction of clean energy projects under Ind. Code ch. 8-1-8.8 and Ind. Code ch. 8-1-8.5. The Commission, therefore, has jurisdiction over Vectren South and the subject matter of this proceeding.

2. Petitioner's Organization and Business. Vectren South is a public utility incorporated under the laws of the State of Indiana. Petitioner has authority to engage in and is engaged in rendering electric service within Indiana. Vectren South owns, operates, manages, and controls, among other things, plants, property, equipment, and facilities that are used and useful for the production, storage, transmission, distribution, and furnishing of electric utility service to approximately 145,000 customers in southwestern Indiana. Petitioner is a wholly-owned subsidiary of VUHI, which is a wholly-owned subsidiary of Vectren Corporation.

3. Relief Requested. In its Verified Petition, Vectren South requested that the Commission issue an Order: (1) authorizing Vectren South to construct, own and operate a solar energy facility totaling approximately 50 megawatts of alternating current ("MWac") (the "Solar

Project") and finding such facility constitutes a "clean energy project" pursuant to Ind. Code § 8-1-8.8-11; (2) issuing a CPCN for the solar energy facility pursuant to Ind. Code ch. 8-1-8.5; and (3) authorizing Petitioner to timely recover costs incurred during the construction and operation of the project in accordance with Ind. Code § 8-1-8.5-6.5 and Ind. Code § 8-1-8.8-11. The proposed Solar Project will be located on approximately 300 acres of land within Spencer County, Indiana and interconnected to the Midcontinent System Operator ("MISO") transmission system.

4. <u>The Parties' Respective Cases-in-Chief</u>.

A. Petitioner's Case-in-Chief.

Wayne D. Games, Vectren South's Vice President – Power Supply, described and provided support for the Solar Project, Vectren South's decision to pursue the Solar Project, as well as provided an overview of the benefits of the Solar Project and its estimated cost. Mr. Games also provided support for the request for the Commission to issue the Company a CPCN for construction of the Solar Project.

Mr. Games explained that the Solar Project is Vectren South's proposal to construct a solar generating facility totaling approximately 50 MWac on approximately 300 acres in Spencer County, Indiana, which will be leased from local property owners. Mr. Games explained that the Solar Project originated from Orion Renewable Energy Group, LLC ("Orion") having leased 300 acres in Spencer County in mid-2017, with the goal of constructing a 50 MWac solar generating facility and either entering into a power purchase agreement or partnering with Vectren South on the project. Mr. Games testified that Vectren South recognized the unique opportunity presented, including the close proximity to a substation, and subsequently entered into an Asset Purchase Agreement with a subsidiary of Orion by which Vectren South would acquire from Orion the assets and associated rights to complete the Solar Project. The Asset Purchase Agreement is contingent on the Commission's approval of the requested relief in this proceeding. Mr. Games stated that Vectren South entered into a Module Sale Agreement with First Solar Electric, LLC ("First Solar") whereby First Solar would sell modules to Vectren South at a fixed price. Vectren also entered into an Engineering, Procurement, and Construction Agreement ("EPC Agreement") with First Solar.

Mr. Games indicated Vectren South selected First Solar's Series 6 photovoltaic ("PV") thin-film modules to install for the Solar Project. The Solar Project will include 150,000 thin-film modules, which will be mounted on a single axis tracking system, offering the ability to track the sun and achieve about 13% additional output for each module. Mr. Games also described other components of the Solar Project, including inverters and a site substation. He said the expected life of the Solar Project is approximately 30 years, but Vectren South would acquire rights to 50-year property leases, so the Solar Project could continue to operate beyond the expected life.

Mr. Games explained that the cost estimates for the total Solar Project will be approximately $76.1 million. Mr. Games testified that these costs are reasonable in comparison to similar projects.

Mr. Games stated that the addition of solar resources are an important part of Vectren South's portfolio, and that the Solar Project is consistent with achieving the Preferred Portfolio Resources mix set forth in Vectren South's 2016 IRP. He stated that Vectren South's customers are increasingly interested in the use of more renewable resources to meet their energy needs. Additionally, Mr. Games explained that the Energy Policy Act of 2005 created a 30% income tax credit ("ITC") for residential and commercial solar energy systems placed in service, and 2019 is the last year to commence construction and receive the full 30% tax credit. Mr. Games also testified that the Solar Project will lead to Vectren South owning, and being able to sell, Solar Renewable Energy Certificates ("RECs"). Mr. Games stated Vectren South anticipates commencing the Solar Project by April 1, 2019, the project being substantially completed by the end of August 2020, and being on-line in the fourth quarter of 2020.

Mr. Games also testified that the Solar Project meets other statutory considerations, including that the Solar Project is a "clean energy project" under Ind. Code § 8-1-8.8-2 and that solar energy is listed as a "clean energy resource" and thus a "renewable energy resource" under Ind. Code § 8-1-8.8-10. Vectren South has requested ongoing review of the Solar Project pursuant to Indiana's CPCN law, and Mr. Games stated that it would provide a written report at the end of each year until the project is completed. In addition, Vectren South will notify the Commission within 60 days of the project's in-service date, and provide ongoing informational updates in its rider filings. Mr. Games stated that the Solar Project is reasonable and necessary and in the public interest, benefiting Indiana and Vectren South's customers by diversifying Vectren South's generation portfolio, providing additional solar generation in Indiana, encouraging economic development and meeting customers' desires to have renewable energy options available.

Matthew R. Brinkman, Solar Business Unit Manager for Burns & McDonnell's Energy Group, supported the reasonableness of the estimated cost of the Solar Project, including a cost comparison to similar projects.

Mr. Brinkman reviewed the background leading to the Solar Project, as well as the Module Sale Agreement with First Solar, which locked in a price for thin-film Series 6 solar modules. Mr. Brinkman stated that at the time the Module Sale Agreement was negotiated, there was significant price uncertainty in the solar market due to the U.S. International Trade Commission's recommendation for tariffs on solar modules. Mr. Brinkman stated tariffs on solar modules, which were recommended to be approved in January 2018, could have effectively doubled solar module costs. Therefore, Vectren South executed the Module Sale Agreement in December 2017, achieving cost certainty for Vectren South and its customers, just before imposition of a 30% tariff on polycrystalline PV modules. Mr. Brinkman testified that the price agreed to in the Module Sale Agreement was a competitive price in the market.

Mr. Brinkman also supported the quality of the materials selected and the contractor selected for EPC services. Mr. Brinkman stated that it was prudent for Vectren South to select First Solar as the EPC contractor because First Solar provided a competitive fixed price for PV modules, and because Burns & McDonnell, through experience, believes First Solar is a reputable and bankable EPC contractor. Mr. Brinkman explained that Burns & McDonnell confirmed the cost estimate was comparable to other similar projects. Mr. Brinkman stated the

equipment and material costs built into the EPC Agreement were consistent with market conditions, and labor, subcontractor, and soft costs were reasonable.

Mr. Brinkman concluded that the costs of the Solar Project are consistent with, if not lower than, market conditions for a utility-scale PV project, using union labor, in Indiana. Mr. Brinkman also concluded the decision to contract with First Solar for thin-film PV modules and EPC work protected Vectren South and its customers from module pricing increases from the solar tariff.

Thomas L. Bailey, Director of Industrial Sales & Economic Development for VUHI, explained why the addition of renewable energy to a utility's resources has become increasingly important to Vectren South's existing and potential large customers. Mr. Bailey testified that large customers, including approximately twenty corporations within Vectren South's service territory, have created sustainable and renewable energy goals or support the efforts taken to construct the Solar Project. Mr. Bailey specifically noted that Toyota, AstraZeneca, Walmart, Berry Global, St. Vincent and Deaconess Health Networks, and the Evansville Vanderburgh School Corporation support the Solar Project.

Mr. Bailey also stated that adding non-carbon resources plays a role in retaining large customers. Mr. Bailey testified that having a diverse portfolio will be a factor in attracting new large customers to locate in Vectren South's territory. Mr. Bailey said that the addition of renewable resources provides other benefits, including the growth of jobs in the community, the creation of construction jobs, and that the utility's fixed costs will eventually be spread over a larger customer base to the benefit of all customers.

J. Cas Swiz, Director of Rates and Regulatory Analysis for VUHI, explained the proposed ratemaking and accounting treatment for the Solar Project and the proposed use of the Clean Energy Cost Adjustment ("CECA") mechanism, which the Commission approved in Cause No. 44909. Mr. Swiz further described why the Solar Project qualifies as a clean energy project under Ind. Code ch. 8-1-8.8.

Mr. Swiz testified that Ind. Code ch. 8-1-8.8 provides for financial incentives including the timely recovery of costs and expenses incurred during the construction and operation of clean energy projects such as the Solar Project. Mr. Swiz summarized Vectren South's request that the Commission approve the necessary accounting and ratemaking treatment to permit Vectren South to timely recover, through the CECA, the project costs it will incur during the construction and operation of the Solar Project through its rates. Mr. Swiz stated that if approved, Vectren South will include these costs in its annual CECA filing once all Solar Project investments have been placed into service.

Mr. Swiz next proposed that Vectren South depreciate all investments within the Solar Project over a period of 30 years. Mr. Swiz stated that CECA revenue requirements will continue to be based on up to date cost and sales forecasts and will be allocated to Vectren South's retail rate schedules using the modified four coincident peak ("4CP") demand allocation percentages utilized in allocating Vectren South's Reliability Cost and Revenue Adjustment ("RCRA"). Mr. Swiz also stated that approved CECA revenue requirements will be reconciled with actual recoveries in subsequent annual updates, in accordance with Ind. Code ch. 8-1-8.8.

Mr. Swiz noted that Vectren South is not requesting construction work in progress ratemaking treatment for the Solar Project, but that it will accrue an allowance for funds used during construction ("AFUDC").

Mr. Swiz next explained how the CECA revenue requirement will be calculated. Mr. Swiz stated that in each annual CECA update, Vectren South will calculate a revenue requirement on all approved investments placed in-service that includes the return on capital investment, incremental property tax, depreciation and O&M expenses, as well as recovery of the regulatory assets recorded through the deferral of O&M expenses, the interim deferral of depreciation expense, and PISCC. Mr. Swiz sponsored illustrative schedules demonstrating the components of the CECA revenue requirement, as well as other schedules describing proposed accounting associated with the Solar Project. Finally, Mr. Swiz described the modified CECA tariff sheet, which updates the allocation percentages to reflect those utilized in Vectren South's RCRA mechanism.

B. OUCC's Case-in-Chief.

John E. Haselden, Senior Utility Analyst-Engineer in the OUCC's Electric Division, testified that Vectren South has not demonstrated that the Solar Project meets applicable statutory requirements under Ind. Code § 8-1-8.5-5(b)(3) or Ind. Code § 8-1-8.5-7(4)(B). Mr. Haselden also asserted that the standard revenue requirements model Vectren South used has certain flaws that, when applied to projects such as the Solar Project, results in a cost to ratepayers that is significantly higher than if a financing structure appropriate to this type of project was used. Mr. Haselden also testified that the Solar Project does not further the public interest in a variety of ways.

Mr. Haselden stated that the Solar Project does not meet the statutory requirements under Ind. Code § 8-1-8.5-5. Mr. Haselden said that the Solar Project is not necessary to meet a need for capacity reserves or energy at a cost better than can be obtained from the market or other sources as evidenced by Vectren South's IRP. Additionally, Mr. Haselden testified that the proposed Solar Project is not necessary for capacity or reserve margin requirements to serve Vectren South's customers. Mr. Haselden further stated that the project does not provide any renewable energy to customers.

Mr. Haselden testified that the addition of the Solar Project will have a *de minimus* effect on Vectren South's power supply diversification. He included testimony and charts demonstrating that portion of actual generation attributable to solar in 2015 and forecasted in 2036 is approximately 1% of Vectren's total actual generation. He continued that all other renewables, e.g. landfill gas and wind contracts, make up only an additional 2-3%

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With respect to whether the Solar Project is consistent with Vectren's IRP, Mr. Haselden ~~also~~ stated that after reviewing Vectren South's modeling output, 50 MW of solar in 2019 was not an optimal economic selection over other resources. Rather, Vectren forced the IRP model to select 50 MW of solar in 2019. Mr. Haselden characterized this subjective decision as giving the appearance of diversification. ~~Additionally, Mr. Haselden testified that the proposed Solar Project is not necessary for capacity or reserve margin requirements to serve Vectren South's customers.~~

With respect to the Solar Project's intersection with customers' desires to reach their renewable goals or attract large customers, Mr. Haselden stated that the Solar Project does not advance either of these goals because no renewable energy will be delivered to Vectren South's customers as a result of the Solar Project. Additionally, the large customers were not informed that the RECs would be sold to the market and that the power they might receive from Vectren South will contain no renewable energy. Mr. Haselden testified that Vectren South's stated intent to sell the RECs to the market cancels the value of the renewable attributes of the Solar Project to both Vectren South and those customers who wish to commit to the Corporate Renewable Energy Buyer's Principles. Mr. Haselden provided some alternatives by which Vectren South could structure the Solar Project to satisfy the desire of large customers who have expressed an interest in solar power. Mr. Haselden testified that Vectren South did not explore alternatives, despite there being no urgent need for the Solar Project to be completed in 2020 in order to satisfy customer needs.

Mr. Haselden also voiced concerns with Vectren South's procurement process for the Solar Project, in that it sought no competitive alternatives to acquiring solar resources within its service territory. Mr. Haselden opined that Vectren South did not pursue alternatives because using the CECA mechanism to pass costs to ratepayers is a riskless way to earn a return. Mr. Haselden also explained the price under the terms of a PPA should be less than that of a utility-owned project. From his analysis, Mr. Haselden concluded that, all things being equal, a project will cost ratepayers more under traditional ratemaking than the same project from which the power is obtained under the terms of a purchased power agreement ("PPA"), and that Vectren South should be required to conduct RFPs for renewable energy projects.

Mr. Haselden stated a concern with regard to the estimated cost of the Solar Project. He said that because the historical and current trend is a reduction in costs for solar projects, Vectren South's decision to enter into a fixed price contract locked in a higher price than what can be realized today. Mr. Haselden noted that he understood Hoosier Energy had entered into a PPA to purchase power from a 200 MW Solar Farm in Randolph County in the 4 cents range and responses to NIPSCO's RFP for solar power had an average price of 3.6 cents per kWh. Mr. Haselden also stated that in order to attain the full ITC, Vectren South need only complete a small amount of work in 2019 and complete the Solar Project by December 31, 2023.

Mr. Haselden concluded by recommending the Commission deny a CPCN for the Solar Project. Alternatively, Mr. Haselden recommended the Commission require Vectren South to acquire solar power from its proposed Solar Project or some other project at the lowest reasonable cost to participating customers.

Kaleb G. Lantrip, Utility Analyst in the OUCC's Electric Division, addressed proposed accounting and ratemaking treatment for the Solar Project. Mr. Lantrip reviewed Vectren South's CECA mechanism approved by the Commission in Cause No. 44909. Mr. Lantrip reviewed how Vectren South is proposing to recover its Solar Project costs incurred during construction and operation, as well as other accounting aspects of its proposal.

Mr. Lantrip said he disagreed with Vectren South's request to change the allocation percentages in the CECA mechanism to match those in the RCRA, instead recommending that Vectren South address the allocation issue in its first CECA mechanism, so that the OUCC and

Commission can evaluate whether the RCRA allocation percentages are also appropriate for the CECA mechanism. Mr. Lantrip also disagreed with Vectren South's proposal to recover Solar Project costs through the CECA mechanism, due to Mr. Haselden's recommendation that the Commission deny Vectren South's requested Solar Project CPCN.

Mr. Lantrip also voiced concerns with Vectren South's proposal to use its weighted average cost of capital (WACC) rate to accrue deferred PISCC on the Solar Project. Mr. Lantrip proposed that if the Commission approved the Solar Project, Vectren South should be required to use the post-in-service AFUDC rate for the post-in-service capitalization of the costs of funds until the time new rates are implemented for the CECA mechanism.

C. Alliance Coal's Case-in-Chief.

Charles S. Griffey provided testimony on behalf of Alliance Coal. Mr. Griffey stated that Vectren South has not claimed there is a capacity need for the Solar Project, as its IRP indicates the utility will have approximately 200 MWs of excess capacity in 2025 and approximately 100 MWs of excess capacity in ~~through at least~~ 2036. Mr. Griffey pointed out that although Vectren South plans to retire some facilities in 2023, it proposes to replace those units with a combined cycle gas turbine (CCGT).

Mr. Griffey believes Vectren South's justifications for pursuing the Solar Project do not provide a reasonable basis to grant a CPCN, because the utility did not provide data or analysis to show that the Solar Project will lead to the provision of reliable, efficient, and economical power for customers. He testified that Vectren South's generation/fuel diversity claim is inconsistent with its larger proposal to build a CCGT. Mr. Griffey stated that the usual context for a fuel/generation diversity is to avoid too much exposure to a volatile fuel source. Until recently, natural gas was generally considered to have the most volatile fuel price. However, Mr. Griffey testified that Vectren is currently proposing to replace coal generation with a CCGT. He said that this increases the volatility of fuel costs. He testified that Vectren South needs to explain why customers are paying for a new CCGT, with increased exposure to natural gas prices, and then also pay for a solar facility to decrease exposure to the more volatile fuel prices.

Mr. Griffey explained that the Solar Project, as proposed, is not cost effective, and he stated that the Solar Project will cost customers millions of dollars annually with little hope that the Solar Project is cost justified. Mr. Griffey stated that based on his analyses, the Solar Project does not break even on an annual basis for 15-25 years, and is an $11 million - $38 million loss for customers if it commences operation in 2020. ~~Mr. Griffey also claimed that Vectren South's assertion that the Solar Project is needed for fuel/generation diversity is more of a slogan than a strategy. Mr. Griffey stated the utility did not quantify the need for generation diversity in its 2016 IRP.~~ Mr. Griffey also stated that Vectren South has strong financial incentives to turning fuel costs into rate base recovery, even if the net effect is a loss to customers. He noted that this is especially true because the law provides financial incentives for clean energy projects, including the timely recovery of costs and expenses incurred during the construction and operation of the clean energy project. Mr. Griffey pointed out that customers pay for these

financial incentives. –Mr. Griffey further pointed out that, from a relative solar resource efficiency perspective, Indiana is not a good location to site the Solar Project.

Mr. Griffey criticized Vectren South's claims regarding the impact of the Solar Project on economic development, asserting that all of Vectren South's customers should not have to pay for the cost of the Solar Project when just certain customers have claimed to want to purchase more renewable resources. Mr. Griffey suggested that Vectren South provide certain customers access to more renewables via a buy-through type tariff to assign the cost of the Solar Project directly to those customers desiring more renewables, or by tracking the excess solar costs above market revenues and charging the volunteering customers ratably for such costs.

Mr. Griffey addressed Vectren South's claim that the Solar Project is consistent with its 2016 IRP, claiming that the utility has not performed the modeling in conjunction with seeking approval of new generation. Further, Mr. Griffey stated that Vectren South has not waited as long as reasonably possible to commit to solar resources. He noted the IURC Director of the Research, Policy, and Planning Division's comments on Vectren's 2016 IRP, that "[a]n appropriate planning aspiration is to maintain flexibility while also waiting as long as reasonably possible to commit to a resource." Final Director's Report for the 2016 Integrated Resource Plans, Nov. 2, 2017, p. 49. , Mr. Griffey testified ~~and contended~~ that the Solar Project can wait longer before commencement and still be eligible for ~~a portion of~~ the ITC. He explained that a project need only commence construction in 2019 and be in service by 2023 to qualify for the full 30% ITC. He said that the Internal Revenue Service has clarified that a project can be determined to have commenced construction based on spending as little as 5% of project costs in 2019. Mr. Griffey also pointed out that, according to some, the imposition of federal tariffs on polycrystalline modules do not portend significant increases in the cost of solar panels.

Mr. Griffey claimed that despite the Solar Project's 50 MW nameplate capacity, it cannot reliably provide capacity near that amount. Rather, using MISO's measure of effective capacity for a new solar project's generating capacity of 50% of its nameplate capacity, the cost per effective unit of capacity is $3,047/kw. Mr. Griffey stated that after accounting for Vectren South's 0.5% annual decline in efficiency, the cost per unit of effective capacity is $3,274/kw. Mr. Griffey performed sensitivity analyses of the Solar Project, and testified that the Solar Project has a net present loss of approximately $11 million. Mr. Griffey performed several sensitivity analyses with different assumptions, and all showed a net present loss for the project.

Mr. Griffey explained that the Solar Project is best thought of as a merchant generating unit because the Solar Project's cost/benefit is driven by the market revenues received. He explained that because Vectren South has no need for capacity and has sufficient generation already to hedge its retail load from wholesale market volatility, the solar project is likely to receive market revenues for its energy and capacity. Mr. Griffey stated that wholesale prices and price expectations do not support building a solar facility in the Indiana portion of MISO today, even with the 30% ITC. Instead, Mr. Griffey suggested Vectren South could acquire development rights and delay the decision to build the Solar Project in the future.

D. CAC's Case-in-Chief.

Kerwin L. Olson, CAC's Executive Director, provided testimony in support of Vectren South's request to construct the Solar Project. Mr. Olson reviewed CAC's strong support for solar energy generally. Mr. Olson stated that while CAC would like to see Vectren South make a much larger investment in clean and sustainable energy, the Solar Project represents a small step in the right direction. He testified that the Solar Project will help diversify Vectren South's energy portfolio. Mr. Olson also explained that the costs for the Solar Project are lower than recent Commission approved projects by Duke Energy Indiana, LLC (Cause No. 44734) and Indiana Michigan Power Company (Cause No. 44511).

Mr. Olson described Vectren South's plan to sell the RECs in the market and flow the financial benefits back to customers, and stated while CAC may agree with that proposal, the issue needs further discussion. He suggested that Vectren South consider holding onto the RECs in the short term and look into the possibility that selling them directly to customers in its service territory may assist those customers to meet their goals and initiatives.

5. Petitioner's Rebuttal Testimony.

Petitioner's witness Games provided rebuttal testimony regarding the importance of the Solar Project as well as the OUCC's incorrect interpretation of Ind. Code § 8-1-8.5-7. Mr. Games explained that Mr. Haselden's contention that the Solar Project did not meet the statutory requirements of Ind. Code § 8-1-8.5-7(4)(B) was incorrect, because there is no requirement that a public utility use a competitive bidding process to select a contractor to perform the EPC work for the project. Mr. Games stated that a public utility that does not use a competitive bidding process is required to obtain a CPCN, but the statutory scheme does not impose a competitive bidding requirement. Mr. Games said that Vectren South is seeking a CPCN in this proceeding precisely because it did not competitively bid the development or EPC components given the unique nature of the opportunity. Mr. Games testified that Mr. Haselden's suggestion that utilities be required to conduct RFPs for renewable energy projects would constitute a new legal requirement in the State of Indiana. Mr. Games then reiterated the steps Vectren South took to ensure the prices of components of the Solar Project are reasonable and consistent with the results of a competitive bidding process.

Mr. Games testified that the Solar Project met all of the criteria Vectren South would have looked for had the project been competitively bid, including the locally-generated renewable power, direct interconnection with low grid infrastructure costs, size and timing consistent with its 2016 IRP, fixed low cost of panels, and use of a reputable contractor.

Mr. Games challenged the OUCC and Alliance Coal's understatement of the importance of green power and diversification. Mr. Games stated that the Solar Project as conceived is beneficial, necessary and affordable. Mr. Games also testified that Indiana's statutory and regulatory scheme expressly recognizes the addition of renewable energy resources is both beneficial and necessary, and the Commission has established a precedent of supporting renewable resources as well as diversification of generation resources.

Mr. Games disagreed with Mr. Haselden's statement that the Solar Project will not aid in the diversification of Vectren South's power supply because the Solar Project will represent an approximate 57% increase in Vectren South's renewable resources. Mr. Games reiterated the

number of benefits that will be derived from the addition of the Solar Project. Mr. Games testified that the most important system need addressed by the Solar Project is bringing diversity of fuel sources to Vectren South's generation portfolio. Mr. Games also stated that that the Solar Project will serve as a complement to the combined cycle gas turbine ("CCGT") plant, as it can be ramped up or down quickly to correspond to the Solar Project's output, especially at peak times.

Mr. Games addressed the contention that Vectren South expects to have surplus capacity of 200 MW in 2025 and 100 MW in 2036, explaining that these figures are based on a number of assumptions, including that the CCGT plant is approved as proposed. Mr. Games said if the fired portion of the plant is not approved, Vectren South will have only 51 MW of surplus capacity in 2025, which figure includes the generation from the Solar Project. Mr. Games reiterated that the capacity shortfall is not the main driver for the Solar Project, but rather generation diversity and the addition of renewable resources as desired by customers are the main drivers.

Mr. Games then addressed the OUCC's pricing arguments. Instead of analyzing recent Commission-approved solar projects, Mr. Games stated that Mr. Haselden used summary information regarding projects that might be undertaken in the next five years. Mr. Games stated it is unfair to compare Vectren South's Solar Project to an assumed price of electricity that might be generated at a solar facility that may or may not be constructed.

Finally, Mr. Games explained that, contrary to Mr. Haselden's testimony, Vectren South did consider options besides simply purchasing the Solar Project, including entering into a PPA for energy produced at the site or potentially partnering in the project, but Vectren South did not consider those options to be in the best interest of customers.

Mr. Brinkman responded to Mr. Haselden and Mr. Griffey regarding the cost, timing, and location of the Solar Project. Mr. Brinkman disagreed with testimony that the Solar Project is too costly in comparison to other projects. With respect to the potential Hoosier Energy PPA with EDP Renewables, Mr. Brinkman stated the project is not comparable because the PPA is for a project three to four times the size of the Solar Project. Moreover, Mr. Brinkman stated that Vectren South will own generation assets for thirty to fifty years. Mr. Brinkman concluded that Mr. Haselden's comparison was an apples-to-oranges comparison. Mr. Brinkman also challenged Mr. Haselden's comparison of PPAs included in a NIPSCO IRP Public Advisory slide.

In response to Mr. Haselden's suggestion that Vectren South acquire land leases from Orion and conduct an RFP for the EPC contract on the site, Mr. Brinkman stated this would not have resulted in a significant decrease in project cost. Mr. Brinkman explained that First Solar conceded to an open book process in which competitive bids for equipment and subcontracted labor were provided to Vectren South and Burns & McDonnell for review, which resulted in an EPC cost which was competitive in the market.

Mr. Brinkman also rebutted the concerns about the operations and sizing of the Solar Project. Mr. Brinkman disagreed with Mr. Griffey's inference that solar PV is not reliable,

testifying that First Solar's solar PV fleet has averaged 99.5% Effective Availability in recent years according to an industry publication.

Mr. Brinkman also testified that any decrease in solar prices is speculative compared to the known benefit of the ITC. Mr. Brinkman stated that when the 30% tariffs were enacted, prices on certain PV modules did increase. He then explained that China revised its renewable energy policy, reducing global demand for solar modules, and reducing the price to pre-tariff levels.

Peter J. Hubbard, Manager of Pace Global, testified regarding the benefits and cost of the Solar Project in response to Mr. Griffey's testimony. Mr. Hubbard stated it is inappropriate to evaluate the Solar Project on a stand-alone basis by determining whether it would generate a profit by offering energy in the MISO market. Mr. Hubbard said it is not appropriate to evaluate utility-owned generation facilities purely in terms of whether they would be profitable.

Mr. Hubbard explained that the Solar Project should be evaluated as one component of Vectren South's generation portfolio, the mix of which is guided by its IRP process. He said the Solar Project should also be considered in light of Indiana's stated policy of encouraging the participation of utilities in alternative energy resources. Mr. Hubbard reviewed the detailed aspects of the IRP process, and the importance of risk analysis in developing IRPs, demonstrating that prudent diversification is more than a slogan and is important in mitigating many types of risk. Mr. Hubbard also pointed out during the IRP process, a utility must consider all of its generation assets to determine the optimal mix of generation assets to meet its long-term needs.

Mr. Hubbard explained that deployment of 50 MW of solar generation in 2019 was considered in Vectren South's 2016 IRP, and was part of its Preferred Portfolio Plan in the 2016 IRP and the 2017 base case update. Mr. Hubbard also reviewed the details of the selection of the Preferred Portfolio Plan in the 2016 IRP, including an evaluation of the risk of each portfolio. Mr. Hubbard also explained that the 2016 IRP considered timing issues related to implementation of solar resources. He concluded that the Solar Project will be an important component of Vectren South's more diversified generation portfolio.

Mr. Bailey provided rebuttal testimony in which he discussed Vectren South's decision to retain the RECs associated with the Solar Project. He explained that, after further consideration of the significant customer desire for local renewable generation, Vectren South has elected to not sell RECs on the open market at this time, which addresses a number of concerns raised by Mr. Haselden.

Mr. Bailey explained that since submitting direct testimony in this proceeding, Vectren South has continued to receive requests from its current customer base, as well as from site selectors reviewing land options for new industrial customers to the area, regarding the availability green power. Mr. Bailey discussed the focus groups Vectren South conducted, as well as the multiple stakeholders and individual customers who participated in the 2016 IRP process.

Mr. Bailey also rebutted Mr. Haselden's proposal that Vectren South use a letter of intent to commit solar energy generation to certain large customers. He explained that Vectren South considered this option, and while this option works for certain customers, there is no one-size-fits-all solution for all customers, and a letter of intent model is inadequate to support development of the Solar Project. Similarly, Mr. Bailey stated his opinion that a community solar farm, a customer-centric project open to only certain customers, a DSM program, or a buy-through tariff all have flaws which data shows have little likelihood of success.

Justin M. Joiner, Vectren South's Director of Regulatory Policy and MISO Affairs, explained that the MISO Generator Interconnection ("GI") process which eventually enables the generator to connect to the MISO transmission system currently is averaging over 2.5 years to complete. Mr. Joiner explained that if Vectren South were to cancel its planned Solar Project and begin an RFP process, it would lose priority of its current project in the MISO GI queue and be forced to restart the 2.5 year process. Thus, Vectren South would not realize the full ITC benefits of 30%, since construction would not begin in 2019.

Mr. Joiner explained due to the nature of some of the expenses associated with the delivery of power to the utility's system, the costs of power generated by an RFP process as well as the one referenced by NIPSCO's IRP Public Advisory slide could be higher. He stated that the total delivered cost includes the cost of the generator itself plus the required GI upgrades, the transmission service to deliver the energy to a specific point and the estimated cost of congestion. Similarly, as there is not yet a GI request for the potential Hoosier Energy project, the cost for the project cited in Mr. Haselden's testimony may be speculative. Mr. Joiner also disagreed with Mr. Griffey's assessment that southern Indiana is not a good location for solar generation, as early estimates from experts suggest the Solar Project will achieve a higher MISO UCAP rating once it becomes operational.

Mr. Joiner disagreed with Mr. Griffey's market assessment on MISO energy and capacity prices, as MISO is in the middle of several market reforms that are changing energy market principles and outcomes. He also stated that there are circumstances that could cause the Vectren South capacity position to change and be exposed to market volatility. For these reasons, adding capacity from the utility-owned Solar Project is prudent.

Mr. Swiz provided rebuttal testimony in response to the proposals made by the OUCC related to the CECA for the Solar Project. He stated that he agreed with Mr. Lantrip's recommendation that the first CECA filing should address proposed allocation changes. However, he disagreed with Mr. Lantrip's recommendation that the Commission require the post-in-service AFUDC rate be used until new rates are implemented through the CECA mechanism. Mr. Swiz noted that the Commission has in six instances in the past five years approved the WACC rate utilized for the PISCC accrual after the in-service date but prior to inclusion in the company's rates. Mr. Swiz concluded that Vectren South was not requesting anything unique in this regard.

6. CAC's Cross-Answering Testimony.

In his cross-answering testimony, CAC witness Olson responded to certain claims made by Mr. Haselden in his testimony. Mr. Olson disagreed with Mr. Haselden's contention that

there are only a "few" large customers with renewable energy, carbon reduction, or sustainability goals. Mr. Olson cited to industry sources to emphasize that nearly 75% of Fortune 100 companies, close to 50% of Fortune 500 companies, and the country's four largest banking institutions are more than a "few," and Mr. Haselden's testimony on this point should not be relied upon by the Commission.

Mr. Olson also stated disagreement with Mr. Haselden's testimony that there is only a "small, but vocal group" desiring to increase investments in renewable energy. Mr. Olson cited to polls indicating that the opposite is true.

7. Settlement Agreement.

A. Agreement that CPCN Should Be Granted.

On October 10, 2018, Petitioner, the OUCC and CAC entered into a Settlement Agreement in which they agreed that the Commission should grant Vectren South a CPCN pursuant to Ind. Code ch.~~§~~ 8-1-8.5~~-1 *et seq.*,~~ to construct the Solar Project as described with specificity in Vectren South's case-in-chief. The Settling Parties further agreed Vectren South's construction cost estimate for the Solar Project of $76.174 million, including a contingency, exclusive of AFUDC and post-in-service carrying costs, constitutes a reasonable estimate of the construction costs for the Solar Project and should be approved by the Commission in accordance with Ind. Code § 8-1-8.5-5. The Settling Parties also agreed the Solar Project is a "clean energy project" as defined in Ind. Code § 8-1-8.8-3. Alliance Coal opposes the Settlement Agreement.

B. Agreement to Use a Levelized Rate.

The Settling Parties acknowledged that due to the special nature of the Solar Project, including the availability of the ITC to offset project costs, the Solar Project represents a unique opportunity to evaluate alternative approaches to traditional ratemaking not applicable to other CPCN projects. Based on that understanding, the Settling Parties structured the ratemaking terms set forth in the Settlement Agreement to use a fixed levelized rate per kWh of produced energy for the life of the investment in the Solar Project. The Settling Parties agreed to an initial levelized rate of $0.05452 per kWh (based on calculations presented in Attachment JCS-S1) to be used to determine the amount recovered annually with respect to Vectren South's investment in the Solar Project (the "Levelized Rate"), which is subject to adjustment only under the following circumstances:

- The Levelized Rate will be adjusted upon issuance of any final order in a future base rate proceeding to capture the impact of changes to the Company's approved return on equity ("ROE").

- The Levelized Rate will be adjusted if any adjustments are made to the law governing Indiana State and/or Federal Income Tax Rates that result in a change to other approved tariff rates.

- The Levelized Rate will be adjusted if any Liquidated Damages are received by Vectren South in accordance with the provisions of the EPC Agreement.

The Levelized Rate is based upon certain assumed levels of production (kWh) from the Solar Project on an annual basis ("Production Baseline"), which are set forth in the Settlement Agreement. To the extent actual annual production from the Solar Project for a rolling three-year period is less than 90% of the Production Baseline for the same rolling three-year period and such deviation is not the result of a force majeure event (*e.g.* and without limitation, tornado, lightning damage, fire, earth quake, acts of state or governmental action impeding performance), Vectren South will credit the CECA in the next annual filing in the amount of the Levelized Rate multiplied by the difference between the rolling three-year period actual annual production and Production Baseline. In the event that actual annual production from the Solar Project for a rolling three-year period is greater than 110% of the Production Baseline for the rolling three-year period, Vectren South will include as a recoverable cost in the CECA in the next annual filing the amount of the Levelized Rate multiplied by the difference between the rolling three-year period actual annual production and Production Baseline.

C. Agreement to Use CECA.

The Levelized Rate will be incorporated in the CECA mechanism, which the Commission approved on August 16, 2017 in Cause No. 44909 for renewable energy projects. The CECA will recover: (a) the revenue requirement associated with the three solar energy projects totaling approximately 4.3 MWac and two energy storage systems approved in Cause No. 44909; and (b) the approved revenue requirement for the Solar Project. The CECA will be filed annually as a subdocket in Cause No. 44909. The procedures and contents of each filing are set forth in the Settlement Agreement. The CECA will be allocated to the Rate Schedules in each CECA tracker filing using the Modified 4CP Allocators Factors.

D. Agreements with Respect to RECs and Customer-Specific Contracts.

The Settlement Agreement provides that any RECs obtained by Vectren South for energy produced by the Solar Project will be utilized by Vectren South in the best interest of its customers. The Settling Parties agree this could include retaining the RECs or, after consultation with the OUCC and CAC, selling some amount of RECs to specific customers or to the REC market. The net proceeds resulting from the sale of RECs will be used as an offset to revenue requirements and returned to customers through the CECA.

In the event a specific customer elects to pay directly for energy produced by the Solar Project, Vectren South agrees to sell this energy and the corresponding RECs at a rate equal to the Levelized Rate, pursuant to a specific contract or rate approved by the Commission; provided, however, that each of the Settling Parties reserves the right to recommend a different rate for Commission approval. All proceeds from contracts for the sale of energy produced by the Solar Project will be used as an offset to the Company's revenue requirements and returned to customers through the CECA.

E. Miscellaneous Terms.

In the event an investment is made at a later date to either expand the Solar Project to increase production or add technological improvements *(e.g.,* battery storage or other investments to extend the life of the Solar Project beyond that which is contemplated in this Settlement Agreement), such investments will be excluded from the Settlement Agreement and included within standard Vectren South rate base to be proposed for recovery in a future proceeding before the Commission.

Vectren South will provide quarterly reports documenting the status of the construction of the Solar Project, including actual costs incurred to date, projected costs through the end of construction of the Solar Project, and anticipated completion (in-service) date of the Solar Project. In addition, Vectren South will notify the Commission and the Settling Parties within sixty (60) days of the in-service date of the Solar Project. Vectren South also will include with its annual CECA filings, the following information relating to the Solar Project: (a) generation output of the Solar Project (with monthly detail); (b) the actual revenue requirement during the 12 months covered by the report based upon the Levelized Rate per kWh and the estimated Production for the 12 month period; (c) the actual production of the Solar Project compared to the Baseline Production; (d) the total RECs proceeds (in U.S. dollars), if any, associated with solar generation at the Solar Project; and (e) the average annual billing impact on all customer classes.

8. <u>Testimony Relating to the Settlement Agreement</u>.

A. Petitioner's Supporting Testimony.

Petitioner's witness Swiz testified that the terms set forth in the Settlement Agreement are supported by and consistent with the evidence submitted by the Settling Parties in this proceeding. Mr. Swiz noted that Petitioner provided substantial evidence to support a Commission finding that granting a CPCN for the construction of the Solar Project is in the public interest. Petitioner also supported the estimated cost of the Solar Project as well as the status of the project as a "clean energy project." Mr. Swiz noted that CAC likewise supported the Commission's granting a CPCN for the Solar Project as proposed in the Company's case-in-chief. However, Mr. Swiz stated that OUCC witness Haselden was opposed to the Solar Project largely because he believed the cost to customers for energy produced by the project was too high in comparison to prices that might be negotiated under a PPA.

Mr. Swiz stated that based on the special nature of the Solar Project, including the availability of the ITC to offset project costs, the Settling Parties recognized that it presented a unique opportunity to evaluate alternative approaches to traditional ratemaking that would not be applicable to other CPCN projects, including any future expansions of the Solar Project.

Mr. Swiz stated that the Levelized Rate approach agreed upon in the Settlement Agreement results in a lower cost for customers than as proposed in Vectren South's case-in-chief. The average cost of the Solar Project as set forth in Vectren South's case-in-chief was approximately 7.1 cents per kWh over the life of the asset. Mr. Swiz noted that the Levelized Rate is slightly lower than the rate Mr. Haselden calculated using a discounted cash flow analysis

in his direct testimony *(i.e.,* approximately 5.5 cents per kWh). Mr. Swiz described the circumstances under which the Levelized Rate could be adjusted. The adjustments are designed to ensure customers benefit from changes that might reduce the Levelized Rate - or in the alternative, that the Company is not unfairly burdened by such changes *(i.e.,* an increase in State or Federal Income Tax Rates). Mr. Swiz concluded that the Levelized Rate approach reduces the overall impact of the Solar Project on customer rates, while still making it feasible from the Company's perspective. In Mr. Swiz's opinion, the approach represents a reasonable compromise between Vectren South's and the OUCC's respective positions in this proceeding.

Mr. Swiz stated that the Levelized Rate will be incorporated into the CECA mechanism, which the Commission approved in Cause No. 44909 for renewable energy projects. Mr. Swiz described the manner in which the CECA will be calculated. The Solar Project component of the CECA will be derived by multiplying the then effective Levelized Rate per kWh, by the projected kWh produced by the Solar Project during the upcoming twelve (12) month period, grossed up for Indiana Utility Receipts Tax ("IURT").

Mr. Swiz stated that in his opinion the Settlement Agreement in the public interest. Mr. Swiz stated that Vectren South engaged in good faith negotiations with the OUCC and CAC to resolve the issues in this proceeding. Mr. Swiz testified that the result is a Settlement Agreement that is good for customers and will allow Vectren South to recover its prudently incurred costs associated with the Solar Project.

Petitioner's witness Bailey testified that the Settlement Agreement provides that RECs obtained by Vectren South for energy produced by the Solar Project will be utilized by Vectren South in the best interest of its customers. The Settling Parties agreed this could include retaining the RECs or, after consultation with the OUCC and CAC, selling some amount of RECs to specific customers or to the REC market. Mr. Bailey stated that the net proceeds resulting from the sale of RECs will be used as an offset to revenue requirements and returned to customers through the CECA. Mr. Bailey testified that the Settlement Agreement gives Vectren South latitude with regard to the use of RECs in order to ensure that they are used in the best interest of customers and promotes collaboration among the Settling Parties with respect to that issue. In general, Mr. Bailey stated it is Vectren South's intention that RECs be available for use by local industries interested in purchasing "green power." If, however, there is not sufficient local demand for the RECs in the future, Mr. Bailey stated that Vectren South will explore selling them on the market after consulting with the OUCC and CAC. Mr. Bailey stated that revenues from such sales would be used to reduce customer costs.

Mr. Bailey stated that the Settlement Agreement provides that if a specific customer elects to pay directly for energy and/or RECs produced by the Solar Project, Vectren South will sell this energy and the corresponding RECs at a rate equal to the Levelized Rate, pursuant to a specific contract or rate approved by the Commission. However, Mr. Bailey stated that each of the Settling Parties reserves the right to recommend a different rate for Commission approval. All proceeds from contracts for the sale of energy and/or RECs produced by the Solar Project will be used as an offset to the Company's revenue requirements and returned to customers through the CECA.

Mr. Bailey stated that the Settlement Agreement provides Vectren South with the ability to sell energy and/or RECs generated by the Solar Project at an attractive rate. Mr. Bailey noted that Vectren South's customers have published global initiatives, which include investment in dedicated renewable resources as part of meeting renewable energy goals by a specific target date. Mr. Bailey stated that Vectren South also has had site selectors inquire as part of their Request for Information ("RFI") process whether the Company has solar assets and is willing to allow a prospective customer to enter into an agreement to purchase renewable energy generated by those assets. In Mr. Bailey's opinion, the terms of the Settlement Agreement allow Vectren South to be responsive to the needs of both existing customers and prospective customers while promoting collaboration among the Settling Parties with respect to the sale of RECs.

Mr. Bailey stated that customers large and small support the addition of renewable resources to Vectren South's generation portfolio. Mr. Bailey stated that the Solar Project provides Vectren South's large customers with the green power they need to reach their renewable energy goals without forcing them to take on the long term operation and maintenance expense of building their own on-site renewable energy generation or seeking some other off-system arrangement. Mr. Bailey testified that the Solar Project provides Vectren South's residential customers with the green power they want in their utility's portfolio without paying any upfront fees.

B. The OUCC's Supporting Testimony.

OUCC witness Cynthia M. Armstrong testified that the OUCC believes the Settlement Agreement is in the public interest for the following reasons:

1) The levelized rate set forth in the Settlement Agreement alleviates the OUCC's concerns regarding the rate impact of the project. By agreeing to a levelized rate of $0.05452 per kWh, the rate that ratepayers will pay for the project will be significantly less than Vectren [South]'s original proposal. The Settlement Agreement also mitigates the rate impact of the project on ratepayers, as the price charged to ratepayers will be fixed, with the exception of any changes of the ROE during a base rate case or changes in tax rates.
2) The Settlement Agreement offers ratepayer protection from increases in project construction or O&M costs over the 35 year time period. If Vectren [South] spends more than the planned $76.174 million in capital costs, or if O&M costs increase above the assumed amount, the Company will still only collect the levelized cost to which it has agreed.
3) The Settlement Agreement provides further ratepayer protection by ensuring the Solar Facility will meet performance requirements. If the facility fails to generate energy at the Baseline Production rate according to the requirements set forth in the Settlement Agreement, then Vectren [South] must credit ratepayers for this shortfall.
4) The Settlement Agreement allows ratepayers to receive the benefit of any liquidated damages Vectren [South] receives from First Solar for failing to meet the minimum guaranteed capacity of the Solar Facility.

5) The Settlement Agreement allows ratepayers to receive tax benefits of the project earlier than what would be experienced through traditional rate making.
6) Ratepayers will receive the full benefit of any solar RECs sold from the facility via a credit to the CECA. Additionally, Vectren [South] will seek agreement from the OUCC and CAC prior to selling the RECs. The OUCC can address any issues regarding claims of renewable energy provided to customers at the time of such discussions. Therefore, the OUCC's initial concern about Vectren [South] making claims regarding the renewable energy it provides its customers is resolved.
7) If Vectren [South] executes a special contract with a large customer wishing to purchase renewable energy from the facility to meet sustainability goals, ratepayers will receive the full benefit of those sales via a credit to the CECA.
8) As a least-cost and must-run unit, the project has the potential to result in fuel cost savings for customers.
9) The Settlement Agreement accomplishes the shared goals of the Settling Parties to provide Vectren [South]'s customers with reasonably-priced Hoosier Homegrown renewable energy.
10) Public policy supports the Settlement. By collaborating to resolve the issues in this proceeding, the Settling Parties' Agreement also serves the public interest by avoiding contentious and costly litigation. Each Settling Party is invested in the development, operation and evaluation process of the entire project and all parties, including the Commission, are able to stay on top of all issues with detailed information obtained through the ongoing review requirements. Given the agreement reached on the ratepayer benefits as outlined in the Settlement Agreement, the OUCC believes the Settling Parties struck a fair resolution of the divergent positions initially taken by the Settling Parties. The OUCC therefore believes the Settlement Agreement is supported by substantial evidence, is in the public interest and should be approved.

For the foregoing reasons, Ms. Armstrong recommended that the Commission approve the Settlement Agreement in its entirety.

C. Alliance Coal's Testimony in Opposition to the Settlement Agreement.

Alliance Coal witness Griffey testified while the Settlement Agreement does decrease the excessive cost on ratepayers that Vectren South originally proposed, the Settling Parties failed to address all of the critical issues. Specifically, Mr. Griffey noted that there is no demonstration of a need for the Solar Project; there is no demonstration that building the Solar Project now results in the lowest reasonable cost of power for customers; Vectren South did not evaluate a delay scenario either in its IRP or in this case; and the Settlement Agreement fails to assign the entire cost of the project to only those customers who want to buy renewable power.

Mr. Griffey testified that the CPCN statute requires a utility to demonstrate that its proposed project will result in reliable, efficient, and economical electric service. With respect to a need for capacity, he stated: "As I demonstrated in my Direct Testimony, Vectren South has not demonstrated a need for the Solar Project, and neither do the Settling Parties present any such evidence."

Mr. Griffey also criticized Vectren South for not reviewing the economics of completing the Solar Project in 2023 instead of 2019 or 2020.

Mr. Griffey also criticized OUCC because the only OUCC witness providing testimony in support of the settlement agreement was Ms. Armstrong and she did not address the issues brought up in Mr. Haselden's testimony. Specifically, Mr. Griffey noted that Ms. Armstrong had not addressed Mr. Haselden's criticisms that the Solar Project was unnecessary for capacity or reserve margin requirements to serve Vectren South's customers and provides only a *de minimis* impact on diversification. Mr. Griffey agreed with Mr. Halseden's direct testimony that a 50MW solar project was not optimally selected in Vectren South's IRP.

Mr. Griffey also testified that the Solar Project as proposed by Vectren South would lose millions of dollars per year during 20[19]-2023 under any of the net present value scenarios evaluated. Mr. Griffey noted that the cost agreed upon in the settlement lowers that loss somewhat, but the loss is still millions of dollars annually. Mr. Griffey provided a chart summarizing his calculations showing a range of annual losses from $1 Million to $2.2 Million.

Mr. Griffey testified that a prudent utility would have evaluated whether beginning development in 2019 with a plan for continuous construction with a completion date in 2023 (thereby qualifying for the full 30% ITC) would have been a more economic course of action.

Mr. Griffey recommended the CPCN be denied. Alternatively, Mr. Griffey recommended Vectren South be ordered to track the cost of the Solar Project compared to the avoided cost of power each year through 2023. Mr. Griffey recommended that any excess cost of the Solar Project over avoided cost through 2023 should not be allowed to be charged to ratepayers.

D. Petitioner's Rebuttal Testimony in Support of the Settlement Agreement.

Petitioner's witness Games testified that Mr. Griffey ignores the evidence presented in this proceeding regarding the importance of incorporating diverse resources in Vectren South's generation portfolio, as well as the ratemaking benefits to customers the Settling Parties have achieved through the Settlement Agreement. Mr. Games stated in both direct testimony and rebuttal testimony, Vectren South provided substantial evidence that the Solar Project is an important step in diversifying its generation resources. In entering into the Settlement Agreement, Mr. Games stated that the OUCC recognized the importance of diversifying Vectren South's generation portfolio through the addition of a renewable resource. Mr. Games noted that Mr. Griffey's testimony continues to be devoid of any challenge to the evidence regarding the importance of diversification of generation resources.

Mr. Games testified that fuel diversity helps protect electric utilities and customers from contingencies such as fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel *(e.g.,* environmental regulations). Mr. Games stated that fuel diversity also can help ensure stability and reliability of electricity supply. For these reasons, Mr. Games stated that the addition of 50 MW of solar generation was part of Vectren South's preferred portfolio in its 2016 IRP and in its 2017 base case update. Mr. Games stated that Mr. Griffey also ignores the testimony of witness Thomas L. Bailey regarding the increasing importance of local renewable resources as part of a utility's generation portfolio to both existing and potential large customers with internal renewable energy targets.

Mr. Games stated that Vectren South did review the economics or risk of completing a Solar Project in 2023 instead of 2019 or 2020. Mr. Games testified that Vectren South evaluated the potential decline in solar capital costs as compared to the benefit of the ITC in connection with the preparation of its IRP and determined that it would be beneficial to commence construction in 2019. In its 2016 IRP, Vectren South estimated the average decline in solar capital costs would be 2.7% per year through 2036 (base year 2016). At this average rate, Vectren South would have to wait 13 years to realize the same benefit of a dollar-for-dollar 30% deduction from federal taxes that is available if construction of the Solar Project begins in 2019.

Mr. Games stated that it would not be feasible to begin development of the Solar Project in 2019 with a planned completion date in 2023. Mr. Games stated that to the extent any reputable EPC contractor would be willing to tie up its labor, equipment or material resources for a period of four years to construct a single 50 MW solar facility, he would expect such a concession to come with a price. Mr. Games noted that one of the primary reasons larger solar jobs can be accomplished at a reduced price per kW is the productivity gains by keeping equipment and consistent labor on the job until complete. To that end, Mr. Games noted that the EPC Agreement with First Solar contains specific construction milestone dates and payments are due when each of those milestones is met.

Mr. Games testified that Vectren South disagreed with Mr. Griffey's calculation of net present value losses. Mr. Games stated that Vectren South in rebuttal cited a number of reasons why Mr. Griffey's approach to analyzing the Solar Project is not appropriate - none of which are responded to in Mr. Griffey's supplemental testimony. Mr. Games stated that the Solar Project is appropriately evaluated for what it is - one component of Vectren South's generation portfolio, the mix of which is guided by the Company's IRP process. However, Mr. Games noted that even assuming *arguendo* that Mr. Griffey's calculation is correct, his own workpaper shows the trend will reverse itself by the eighth year of operation *(i.e.,* 2028) in his third scenario and by the ninth year of operation *(i.e.,* 2029) in his second scenario. Thereafter, the Solar Project would have a positive return that grows over the course of 22 years and 21 years, respectively *(i.e.,* through 2049). Consequently, over the course of a 30-year life, the Solar Project would have a positive NPV (net benefit) of $13,301,731 under Mr. Griffey's second analysis and $12,893,863 under Mr. Griffey's third analysis. In addition, Mr. Games noted that Mr. Griffey's analysis fails to capture the fact that the Settling Parties agreed to a 35-year life. Mr. Games stated that extending Mr. Griffey's analysis over an additional 5-year period would only increase the beneficial NPV in his two scenarios - $20,720,959 for the second, and $18,228,636 for the third.

With respect to Mr. Griffey's recommendation that Vectren South be ordered to track the cost of the Solar Project compared to the avoided cost of power each year through 2023 and that any "excess of the cost of the Solar Project over avoided cost through 2023 should not be allowed to be charged to ratepayers," Mr. Games responded that none of Vectren South's generation assets should be looked at or tracked on an isolated basis. Mr. Games stated that a utility must consider all of its generation assets and then determine the optimal mix of generation assets to meet its long-term needs. Mr. Games noted that using this approach, some of Vectren South's remaining coal assets would be the biggest NPV losers - and, unlike the Solar Project, those assets are unlikely to result in a positive NPV in the near future or over the remainder of their lives.

E. OUCC's Rebuttal Testimony in Support of the Settlement Agreement.

OUCC witness Armstrong testified that the OUCC believes that the Settlement Agreement appropriately resolves the issues the OUCC previously raised in its direct testimony, and that the requirements set forth in the Settlement Agreement justify approving the proposed settlement and issuing Vectren South's requested CPCN for the Solar Project. In responding to Mr. Griffey's criticism of the Settlement Agreement and its inconsistency with the OUCC's direct testimony, Ms. Armstrong first testified that any settlement involves give and take from all settling parties, and that it is possible for settling parties to continue to disagree on certain principles and positions raised in litigation, yet craft and support a beneficial settlement agreement that resolves the parties' major concerns. She stated that while the OUCC may not fully agree with all of Vectren's assertions in its Case-in-Chief and Rebuttal testimony, the Settlement Agreement allows the settling parties to agree on an acceptable middle ground that provides Vectren with the necessary approvals to construct the Solar Project.

Ms. Armstrong next testified that while the OUCC objected to the reasonableness of the cost of the facility in its direct testimony, the Settlement Agreement addresses this concern by structuring recovery so that the levelized cost charged to ratepayers is more consistent with current solar power prices, and effectively caps the amount Vectren South can charge ratepayers to recover project costs.

Third, Ms. Armstrong stated that Vectren included plans to construct a 50 MW solar facility in its short term action plan in its 2016 IRP. She testified that although OUCC Witness Haselden stated that the model was forced to select 50 MWs of solar in 2019 and that this was not an optimal economic selection over other resource options, the OUCC was willing to set aside its position regarding the modeling of solar resources in exchange for all of the consumer protections and public benefits Ms. Armstrong previously discussed in her Settlement Testimony. She further noted that Mr. Haselden acknowledged in his direct testimony that installing 50 MWs of solar was a better choice than 9 MWs of solar, due to the economies of scale in pricing. Ms. Armstrong stated that constructing the 50 MW solar facility now instead of at a later date allows Vectren South to take full advantage of the ITC, plus, the Settlement Agreement is structured to allow Vectren South to pass along the benefits of the ITC to its customers sooner. Ms. Armstrong also noted that the action of the OUCC in settling this case should not be interpreted as agreement with all of the modeling inputs or associated outputs of Vectren's 2016 IRP, nor does it change positions taken by the OUCC in Cause No. 45052.

Finally, Ms. Armstrong stated that cost is not the only factor the OUCC considers in its analysis of a request for a CPCN. In the case of renewable projects, Ms. Armstrong stated the OUCC has supported, and the Commission has approved, projects that were not always the least cost available option. She explained that many ratepayers express their interest in utilities obtaining more renewable resources and diversifying their generation portfolios. Ms. Armstrong stated there may also be additional economic development opportunities with developing renewable projects within the state. Additionally, Ms. Armstrong stated that including more low- or zero-emitting resources in a utility's portfolio may mitigate the cost impact of future environmental requirements. Ms. Armstrong concluded that each of these factors supports approval of the Solar Project.

Ms. Armstrong further stated that the OUCC's main objections to the Solar Project revolved around its cost, when compared to the cost of new solar facilities being built today. Ms. Armstrong stated, the OUCC believes the Settlement Agreement effectively resolves this issue by lowering the levelized cost of the project, mitigating the rate impact of the project on customers, and limiting the construction costs Vectren South is permitted to recover from ratepayers.

9. <u>Discussion and Findings</u>.

A. Consideration of Settlement Agreements.

In various Orders of the Commission in other proceedings, we previously have discussed our policy with respect to settlements:

> Indiana law strongly favors settlement as a means of resolving contested proceedings. *See, e.g*., *Manns v. State Department of Highways*, (1989), Ind., 541 N.E.2d 929, 932; *Klebes v. Forest Lake Corp.*, (1993), Ind. App. 607 N.E.2d 978, 982; *Harding v. State*, (1992), Ind. App., 603 N.E.2d 176, 179. A settlement agreement "may be adopted as a resolution on the merits if [the Commission] makes an independent finding, supported by substantial evidence on the record as a whole, that the proposal will establish 'just and reasonable' rates." *Mobil Oil Corp. v. FPC*, (1974), 417 U.S. 283, 314.

Indianapolis Power & Light Co., Cause No. 39936, p. 7 (IURC 9/24/95); *see also Commission Investigation of Northern Ind. Pub. Serv. Co.*, Cause No. 41746, p. 23 (IURC 9/23/02). This policy is consistent with expressions to the same effect by the Supreme Court of Indiana. *See, e.g.*, *Mendenhall v. Skinner & Broadbent Co.*, 728 N.E.2d 140, 145 (Ind. 2000) ("The policy of the law generally is to discourage litigation and encourage negotiation and settlement of disputes"); *In re Assignment of Courtrooms, Judge's Offices and Other Facilities of St. Joseph Superior Court*, 715 N.E.2d 372, 376 (Ind. 1999) ("Without question, state judicial policy strongly favors settlement of disputes over litigation").

Nevertheless, pursuant to the Commission's procedural rules, and prior determinations by this Commission, a settlement agreement will not be approved by the Commission unless it is

supported by probative evidence. 170 IAC 1-1.1-17. Settlements presented to the Commission are not ordinary contracts between private parties. *United States Gypsum, Inc. v. Indiana Gas Co.*, 735 N.E.2d 790, 803 (Ind. 2000). Any settlement agreement approved by the Commission "loses its status as a strictly private contract and takes on a public interest gloss." *Id.* (quoting *Citizens Action Coalition v. PSI Energy, Inc.*, 664 N.E.2d 401, 406 (Ind. Ct. App. 1996)). Thus, the Commission "may not accept a settlement merely because the private parties are satisfied; rather [the Commission] must consider whether the public interest will be served by accepting the settlement." *Citizens Action Coalition*, 664 N.E.2d at 406. Furthermore, a Commission decision, ruling or order must be supported by specific findings of fact and sufficient evidence. *United States Gypsum*, 735 N.E.2d at 795 (citing *Citizens Action Coalition v. Public Service Co.*, 582 N.E.2d 330, 331 (Ind. 1991)). Therefore, before the Commission can approve the Settlement Agreement, we must determine whether the evidence in this Cause sufficiently supports the conclusion that the Settlement Agreement is reasonable, just, and consistent with the purpose of the governing statutory provisions, and that such agreement serves the public interest.

In this case, the Commission has before it a large body of evidence with which to judge the reasonableness of the terms of the Settlement Agreement, including the Settling Parties' agreement that the Commission should grant Vectren South a CPCN pursuant to Ind. Code § 8-1-8.5-1 *et seq.,* to construct the Solar Project. We are also mindful that settlements represent the product of negotiations, and modifications to the terms can result in nullification of the entire settlement.

~~As we will discuss below, the record includes substantial evidence supporting each element of the CPCN statute. Moreover, the evidence of record supports the Settling Parties' agreement that the Solar Project is a "clean energy project" under Ind. Code § 8-1-8.8-11 and the resulting ratemaking terms.~~

Alliance Coal objects to the Settlement Agreement based on its view that Vectren South has not complied with the requirements of the Ind. Code ch. 8-1-8.5. Specifically, Alliance Coal argues that Vectren South does not need to add solar generation resources to meet its capacity needs, ~~and~~ that building the Solar Project does not result in the lowest reasonable cost of power for customers; and ~~rather in Alliance Coal's view,~~that it would be more economic to defer any addition of solar power to at least 2023. We will address the disputed issues ~~raised by Alliance Coal~~ in our discussion below.

B. CPCN Request under Ind. Code ch. 8-1-8.5.

Indiana Code § 8-1-8.5-2 states that a public utility must obtain a CPCN from the Commission prior to constructing, purchasing, or leasing a facility for the generation of electricity. In the Settlement Agreement, the Settling Parties agree Vectren South should be granted a CPCN under Ind. Code ch. 8-1-8.5 to construct the proposed 50 MW Solar Project. We review each of the factors set forth in Ind. Code ch. 8-1-8.5 that the Commission must consider before granting a CPCN in the discussion below.

1. Best Estimate of Cost.

Pursuant to Indiana Code § 8-1-8.5-5(b)(1), a CPCN may be granted only if the Commission makes a finding "as to the best estimate of construction, purchase, or lease costs based on the evidence of record."

In the Settlement Agreement, the "Settling Parties agree[d] Vectren South's construction cost estimate for the Solar Project of $76.174 million, including a contingency, exclusive of AFUDC and post-in-service carrying costs, constitutes a reasonable estimate of the construction costs for the Solar Project and should be approved by the Commission in accordance with Ind. Code § 8-1-8.5-5." Petitioner's witness Games testified that the vast majority of the project cost is fixed pursuant to the terms of those agreements. Petitioner's witness Brinkman provided an analysis of the reasonableness of each component of the cost of the Solar Project incorporated into the EPC Agreement, including the cost of the modules. Mr. Brinkman concluded that the cost of the Solar Project is consistent with – if not lower than – market conditions for a utility scale solar project using union labor in Indiana.

Based on the evidence of record, we find that Vectren South has provided sufficient evidence to support its estimate of construction costs for the Solar Project, consistent with CPCN statutory requirements, and the cost is reasonable for a project of this nature and scope.

2. Inclusion in Petitioner's 2016 IRP.

Indiana Code § 8-1-8.5-3 provides that a public utility may be required to file with the Commission, "a current or updated Integrated Resource Plan as part of a utility specific proposal to the future needs for electricity to serve the people of the state or the area served by the utility." Under Indiana Code § 8-1-8.5-5(b)(2), a CPCN shall be granted only if the Commission has made a finding that either:

> (A) the construction, purchase, or lease will be consistent with the commission's analysis (or such part of the analysis as may then be developed, if any) for expansion of electric generating capacity; *or*
> (B) *the construction, purchase, or lease is consistent with a utility specific proposal submitted under section 3(e)(1) of this chapter*. . . .

(*emphasis added*).

Petitioner's witness Games sponsored Petitioner's 2016 IRP as Petitioner's Exhibit No. 1, Attachment WDG-4. The Preferred Portfolio Plan in Petitioner's 2016 IRP, and the more recent update thereto, includes the addition of 50 MW of solar-powered generation in 2019. The 2016 IRP indicates that "Vectren plans to add 50 MW of solar in 2019, which corresponds with clean energy tax incentives for solar power plants." See Petitioner's Exhibit No. 1, Attachment WDG-4 at 47. The 2016 IRP notes that 2019 is the "last year to commence construction and receive the full 30% benefit (it tapers down from there)." *Id*. at 62. Petitioner argues that based on this evidence, the Solar Project is consistent with its IRP. We cannot agree. ~~Accordingly, we find Petitioner's proposed 50 MW Solar Project is consistent with Petitioner's 2016 IRP.~~

OUCC witness Haselden testified that Vectren forced its IRP Model to select 50 MWs of solar in 2019. In Mr. Haselden's words, this was not an optimal economic selection over other resources. Rather, it reflects a subjective decision by Vectren South to force its own resource choice into the IRP modeling. These concerns were echoed by Alliance Coal w~~W~~itness Griffey in his testimony opposing the settlement agreement.

~~In opposing the Settlement Agreement, Alliance Coal witness~~ Mr. Griffey also pointed out that Vectren South never evaluated whether it ~~suggests it~~ would be ~~"~~more economic to defer any addition of solar power to at least 2023~~, and Vectren South never evaluated such a scenario in~~ either its IRP or now.~~"~~ Vectren South attempts to refute this by claiming that ~~Mr. Griffey's contention regarding the IRP, however, is refuted by~~ the language of the IRP relates~~ing to~~ the need to commence construction in time to take advantage of the 30% ITC. Vectren South witness Hubbard further explained: "In its 2016 IRP, Vectren South estimated the average decline in solar capital costs would be 2.7% per year through 2036 (base year 2016)." ~~Therefore, we reject Alliance Coal's suggestion that delaying the addition of 50 MW of solar generation was not considered.~~ Here again, Vectren appears to have simply inserted a self-serving conclusion into the IRP analysis rather than allowing the model to test a variety of alternatives and sensitivities.

Vectren South's argument on this issue is a type of circular reasoning. Of course the Solar Project will be consistent with Vectren South's IRP if the Company forces the IRP to select a comparable solar project regardless of whether or not such a project would have been an optimal economic selection otherwise. This problem is amplified because Vectren South did not sufficiently test the forced selection under a variety of alternatives and sensitivities. To allow such an argument to stand would be to provide a roadmap to an automatic CPCN approval. A utility would simply have to require the IRP model to select its preferred project and then assert that the project is consistent with the IRP. We find that this approach to IRP modeling is fundamentally flawed. Because we have no way of knowing whether Vectren South's IRP model would have objectively selected or justified the Solar Project, we cannot say that the Solar Project is consistent with the IRP.

Ind. Code § 8-1-8.5-5(b)(2) allows us to alternatively consider whether the proposed project is consistent with the Commission's analysis (or such part of the analysis as may then be developed, if any) for expansion of electric generating capacity. However, no evidence was submitted that would allow us to make findings or conclusions on this issue. Therefore, we must find that Vectren South has failed to comply with Ind. Code § 8-1-8.5-5(b)(2).

3. Public Convenience and Necessity.

Pursuant to Indiana Code § 8-1-8.5-5(b)(3), before granting a CPCN, the Commission must make "a finding that the public convenience and necessity require or will require the construction, purchase, or lease of the facility." Alliance Coal's principal objection to the Settlement Agreement is that, in Mr. Griffey's opinion, ~~"~~Vectren South has not demonstrated a need for the Solar Project and the project will have a *de minimis* effect on diversification."~~"~~ ~~As further discussed below, Alliance Coal has improperly discounted the importance of diversification of generation resources, adding "home grown" renewable generation resources to~~

~~a utility's portfolio and meeting customer desires with respect to the manner in which they want to be served.~~

Ind. Code § 8-1-8.8-11(a) states that: "The commission shall encourage clean energy projects [which includes solar energy projects] by creating ... financial incentives for clean energy projects, if the projects are found to be reasonable and necessary." Additionally, Ind. Code § 8-1-2.4-1 states: "It is the policy of this state to encourage the development of alternate energy production facilities [including solar facilities], cogeneration facilities, and small hydro facilities in order to conserve our finite and expensive energy resources and to provide for their most efficient utilization." Further, Ind. Code ch. 8-1-37 allows a utility to develop a clean energy resource portfolio (including solar energy resources), and to earn financial incentives if the utility meets its portfolio goals.

We begin with the simple fact that Vectren South currently has and projects that it will continue to have capacity in excess of what it needs to service its customers.[3] Vectren South's witness Games admits that Vectren South expects to have surplus capacity of 200 MW in 2025 and 100 MW in 2036, assuming that its proposed CCGT plant is approved. But even if the plant is not approved, Vectren South would still have a 51 MW surplus capacity in 2025, including the Solar Project. Mr. Games further admitted that the capacity shortfall is not the main driver for the Solar Project. We agree and find that Vectren South has failed to prove that the Solar Project is required in order for Vectren South to meet the capacity requirements to reliably serve its customers.

Vectren South and the Settling Parties, however, argue that the Solar Project is necessary to add diversity to Petitioner's generation portfolio and to reduce risks. ~~The Solar Project was included in Petitioner's Preferred Portfolio Plan primarily as a means of adding diversity to Petitioner's generation portfolio and reducing risks.~~ The Solar Project would add a new renewable energy resource to a portfolio that currently includes only minimal solar generation resources (4 MW). In addition to Petitioner's 4 MW of solar generation, Vectren South's current generation mix consists of approximately: 1,000 MW of coal-fired generation, 245 MW of gas-fired generation (peaking units), 3 MW of landfill gas generation, PPAs totaling 80 MW from wind, and a 1.5% ownership share of Ohio Valley Electric Corporation ("OVEC"), which equates to 32 MW. Thus, after adding the Solar Project to Vectren South's current resource mix, the Solar Project would make up approximately 3.53% of the total mix. Vectren South asserts that its ~~The~~ wind PPAs expire in 2028 and 2029 – at which point, Vectren South would have only *de minimis* renewable resources in its portfolio absent construction of the Solar Project. (Petitioner's Exh. 5 at 15-16.)

Assuming Vectren South's current generation portfolio plus the Solar Project and minus the wind PPAs, the Solar Project would make up approximately 3.74% of the total mix. But this assumes that the Solar Project can generate electricity at its nameplate capacity of 50 MW, which is very unlikely. Further, Vectren South is making this argument at the same time that it is proposing to change its fossil fuel generation portfolio from approximately 80% coal and 20%

[3] This would be especially true if Vectren South's contemporaneously filed petition for approval of a CPCN for a very large gas CCGT is granted; however, that cause has not yet been decided.

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natural gas to 100% gas in a single generating station, which will significantly decrease Vectren South's fuel diversity and increase its risk of exposure to fluctuating fuel prices.

Faced with these figures, we must return to the fact that Vectren South is projected to have surplus capacity and that the Solar Project was not economically selected in the IRP model as an optimal resource to meet Vectren South's capacity needs. If Vectren South needed the 50MW of capacity to reliably serve its customers, we would agree that it would be appropriate to give consideration to adding renewable or other fuel sources to its generation portfolio in an effort to increase diversity and to limit reliance on a single fuel source. However, that is not the case here as Vectren South admits. Resource diversity, standing alone, is not a sufficient basis for our approval of the CPCN where the capacity generated by the resource is not required by the utility to adequately provide reliable service to its customers. Further, although Indiana public policy as expressed in our statutes supports the development of renewable resources, those statutes also require that such resources be reasonable and necessary, utilized efficiently, and be used to meet a utility's portfolio goals. Each of these requirements is frustrated where the renewable resources being constructed is unnecessary to meet a utility's capacity need. Therefore, we find that public convenience and necessity do not and will not require the construction of the Solar Project. ~~OUCC witness Armstrong testified in support of the Settlement Agreement that "the Settlement Agreement accomplishes the shared goals of the Settling Parties to provide Vectren [South]'s customers with reasonably priced Hoosier Homegrown renewable energy." (Public's Exh. 2 at 9.)~~

~~Ms. Armstrong's testimony regarding the importance of reasonably priced Hoosier Homegrown renewable energy is consistent with the express recognition in the Indiana statutory and regulatory scheme that the addition of renewable energy resources in the State is both beneficial and necessary. For example, In addition to the foregoing statutory provisions, we previously have recognized the importance of fuel diversity generally, with respect to generation portfolios, and recognized the benefits of "home grown" renewable solar resources, in particular. For example, in approving a long-term purchase of power by Duke Energy Indiana from a wind provider, we stated:~~

~~Not only does the environment benefit from such emissions free electric generation but also Indiana benefits through the development of another "home grown" energy resource. The price volatility of foreign energy and carbon fuels and the historically increasing costs and stringency of environmental emissions compliance make the potential Indiana savings from reasonably priced Indiana renewable energy sources more economically beneficial than ever before. In addition, as the record substantiates here, this renewable energy project offers the traditional economic benefits of local Indiana business investment, revenue generation, and job creation.~~

~~*Verified Petition of PSI Energy, Inc. d/b/a Duke Energy Indiana, Inc. for Approval of a Renewable Wind Energy Project Purchased Power Agreement,* Cause No. 43097 (IURC; Dec. 6, 2006) at 16-17. We made similar findings in approving Duke Energy Indiana's proposal to enter into a solar PPA. See, *Re Duke Energy Indiana, LLC*, Cause No. 44953 (IURC; November 21, 2017) at 9 ("The evidence shows the Staunton Solar project represents a reasonable addition to and diversification of Duke Energy's resource portfolio consistent with Petitioner's IRP. In~~

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addition, the price construct of the Solar PPA will provide an energy resource independent of fuel price volatility or increased emissions costs.")
Likewise, in *Re Indiana & Michigan Power Company*, Cause No. 44511 (IURC; February 4, 2015), we noted that "Chapter 8.5 reflects an integrated resource process which seeks to utilize a diversified portfolio of supply side and demand resources (e.g., coal, gas, nuclear, wind, solar, energy efficiency, load management)." In approving I&M's Clean Energy Solar Pilot Project ("CESPP") we found: "While solar generation, as an intermittent energy resource, has certain operational challenges, it is a zero carbon source of electricity that can further diversify I&M's generation portfolio, which now consists of coal, nuclear, wind and hydro generation." *Id*. at 8.

We have, in fact, emphasized the importance of fuel diversity in multiple proceedings. *See e.g., Verified Petition of Indianapolis Power & Light Company for Certificates of Public Convenience and Necessity,* Cause No. 44794 (IURC; April 26, 2017)("fleet fuel diversity mitigates risks"); *Joint Petition of PSI Energy, Inc. and CinCap VII for Issuance of Certificates of Public Convenience and Necessity,* Cause No. 42145 (IURC; Dec. 19, 2002)(the addition of gas fired peaking capacity will benefit the system in terms of fuel diversity and mitigating future environmental regulation risk); *In the Matter of the Petition of Wabash Valley Power Association for Issuance of* a *Certificate of Public Convenience and Necessity,* Cause No. 42321 (IURC; March 26, 2003) ("Landfill Units are an appropriate choice to meet Petitioner's need for additional generating capacity, which should enhance system integrity and reliability and provide Petitioner with increased fuel diversity.").

We continue to believe fuel diversity and the addition of "home grown" renewable resources is important to protect electric utilities and their customers from contingencies such as fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel *(e.g.,* environmental regulations). Fuel diversity also can help ensure stability and reliability of electricity supply and can strengthen national security. We would note that in 2011, the Indiana General Assembly created a voluntary clean energy portfolio standard that set a target of producing 7% of the state utilities' electricity supply from clean energy sources by 2019, with the share increasing to 10% by 2025. Approval of the Solar Project allows Vectren South to get closer to the foregoing targets.

The Settling Parties also argue that In addition to the benefits of fuel diversification, Petitioner presented substantial evidence that the additional of renewable resources are beneficial in efforts to retain and attract industrial and commercial customers seeking to meet renewable energy goals. The evidence presented in this respect is largely anecdotal and over-generalized. Vectren South only presented specific evidence related to two industrial users, evidence that within its service territory alone, approximately twenty corporations have publicly created sustainability goals or support efforts taken by Vectren South to construct the Solar Project. Vectren South has had discussions with Toyota and AstraZeneca, with whom Petitioner has discussed regarding purchasing energy produced by the Solar Project under a special contract. As Mr. Griffey testified, to the extent such large customers desire to purchase energy generated by renewable resources, Vectren South has the option to enter into a special contract with such customers to fund the construction of the facility and to purchase the power generated by it. In this way, the interested customers are responsible for the costs of constructing generation that is otherwise unnecessary for Vectren South to reliably serve its customers. In addition, assuming

the renewable facility can be interconnected with the customers' operations, this process also assures such interested customers that the energy they purchase is actually generated by renewable resources, which could not be guaranteed under the proposed Solar Project.

In order for the Commission to issue a CPCN for the Solar Project, Petitioner must satisfy each of the factors in Ind. Code ch. 8-1-8.5 Based on our discussion above and our findings that the Solar Project is not consistent with Petitioner's IRP (or the Commission's statewide resource analysis) ~~and has entered into a letter of intent with AstraZeneca to enter into a contract to purchase power generated by the facility. Vectren South also has had site selectors inquire as part of their RFI process whether the utility has solar assets and is willing to allow a prospective customer to enter into an agreement to purchase renewable energy generated by those assets. Vectren South's residential customers also have indicated that they want the Company to add renewable resources to its portfolio.~~

~~OUCC witness Armstrong provided testimony supporting Vectren South's testimony regarding the desires of customers. Ms. Armstrong noted that "many ratepayers express their interest in utilities obtaining more renewable resources and diversifying their generation portfolios." Ms. Armstrong stated: "[t]here may also be additional economic development opportunities with developing renewable projects within the state." (Public's Exh. 3 at 3.)~~

~~The Solar Project serves to diversify Vectren South's generation portfolio, provides additional "home grown" solar generation located in Indiana, encourages economic development and meets customers' increasing desire to have renewable energy options available to serve their needs. Based on the evidence of record, the Commission finds that the public convenience and necessity requires Petitioner's construction of the 50 MW Solar Project.~~ and that public convenience and necessity do not require the construction of the Solar Project, we deny Vectren's South's Request for a CPCN for the Solar Project.

C. Other Issues.

Because we have denied Vectren South's request for a CPCN for the Solar Project, we need not address the remaining issues in this case.

10. Confidentiality. On May 4, 2018, Vectren South filed a motion for protection and nondisclosure of confidential and proprietary information. In the motion and supporting affidavit, Vectren South demonstrated a need for confidential treatment for the detailed cost estimates for its Solar Project. On May 17, 2018, the Presiding Officers preliminarily determined such information is subject to confidential procedures. Following entry of the May 17, 2018 Docket Entry, Vectren South learned the total cost of the Solar Project already was in the public domain. Therefore, the parties offered into evidence exhibits containing the total cost of the Solar Project and the cost per kWh in unredacted form. However, the remaining Confidential Information covered by the May 4, 2018 Motion and May 17, 2018 Docket Entry continue to meet the confidentiality standards. We find this information has independent economic value from not being generally known or readily ascertainable, that Vectren South takes reasonable steps to maintain its secrecy, and that disclosure would cause harm to Petitioner; therefore, the Commission finds this materials confidential pursuant to Ind. Code §§ 5-14-3-4 and 24-2-3-2, is

exempt from public access and disclosure, and will be protected from public access and disclosure by the Commission.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. Vectren South's request for a CPCN for the construction of the Solar Project is denied.

2. The material Vectren South filed in this Cause under seal is declared to contain trade secret information and deemed confidential pursuant to Ind. Code §§ 5-14-3-4 and 24-2-3-2, is exempt from public access and disclosure, and shall be held by the Commission as protected from public access and disclosure, consistent with Finding Paragraph 10.

3. This Order shall be effective on and after the date of its approval.

HUSTON, FREEMAN, KREVDA, OBER, AND ZIEGNER CONCUR:

APPROVED:

I hereby certify that the above is a true and correct copy of the Order as approved.

_____

Mary M. Becerra
Secretary of the Commission
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