

ORIGINAL

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF DUKE ENERGY INDIANA,)
INC. FOR (i) APPROVAL OF FOUR (4) SOLAR)
PURCHASED POWER AGREEMENTS; (ii) TIMELY)
RECOVERY OF THE RETAIL JURISDICTIONAL)
PORTION OF PURCHASED POWER COSTS)
THROUGH RETAIL RATES PURSUANT TO)
INDIANA CODE 8-1-8.8; (iii) APPROVAL OF AN)
ALTERNATIVE REGULATORY PLAN PURSUANT)
TO INDIANA CODE § 8-1-2.5-1 ET SEQ. FOR A)
MODIFICATION TO ITS GOGREEN STANDARD)
CONTRACT RIDER NO. 56; AND (iv))
CONFIDENTIAL TREATMENT OF PRICING AND)
OTHER PROPRIETARY TERMS OF THE)
PURCHASED POWER AGREEMENTS)

CAUSE NO. 44578

APPROVED:

AUG 19 2015

ORDER OF THE COMMISSION

Presiding Officers:

James F. Huston, Commissioner

David E. Veleta, Administrative Law Judge

On December 29, 2014, Duke Energy Indiana, Inc. (“Duke Energy Indiana”) filed a Verified Petition requesting approval of four solar purchased power agreements (“PPAs”) and associated cost recovery assurance, and approval of an Alternative Regulatory Plan (“ARP”) designed to provide customers with an option to purchase locally sourced green power renewable energy credits (“RECs”).

On February 19, 2015, Duke Energy Indiana filed its direct testimony and exhibits, along with a request for administrative notice. On March 2, 2015, the Indiana Utility Regulatory Commission (“Commission”) issued a docket entry granting Duke Energy Indiana’s request for administrative notice. On January 26, 2015 and April 9, 2015, respectively, Nucor Steel-Indiana, a division of Nucor Corporation (“Nucor”), and the Duke Energy Indiana Industrial Group (“Industrial Group”) filed Petitions to Intervene in this proceeding. The Presiding Officers subsequently granted those Petitions to Intervene. On April 16, 2015, the Indiana Office of Utility Consumer Counselor (“OUCC”) and the Industrial Group filed their respective cases-in-chief. On April 30, 2015, Duke Energy Indiana filed its rebuttal testimony.

An evidentiary hearing was conducted on May 19, 2015, at 9:30 a.m., in Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana. At the hearing, the parties offered their respective pre-filed testimony and exhibits, which were admitted into the evidentiary record without objection. No members of the public appeared.

Based upon the applicable law and the evidence, the Commission now finds:

1. **Notice and Commission Jurisdiction.** Notice of the hearing in this Cause was given and published as required by law. Duke Energy Indiana, is a public utility within the meaning of that term as used in Indiana Code § 8-1-2-1 and Indiana Code § 8-1-8.5-1, and is subject to the jurisdiction of the Commission in the manner and to the extent provided by the Public Service Commission Act, as amended, and other pertinent laws of the State of Indiana. Duke Energy Indiana requests relief pursuant to Indiana Code ch. 8-1-8.8, Indiana Code § 8-1-2-42(a), and Indiana Code ch. 8-1-2.6. Therefore, the Commission has jurisdiction over Duke Energy Indiana and the subject matter of this Cause.

2. **Duke Energy Indiana's Characteristics.** Duke Energy Indiana is a public utility corporation organized and existing under the laws of the State of Indiana with its principal office in Plainfield, Indiana. It is a second tier wholly-owned subsidiary of Duke Energy Corporation. Duke Energy Indiana is engaged in rendering electric utility service in the State of Indiana and owns, operates, manages, and controls, among other things, plant and equipment within the State of Indiana used for the production, transmission, delivery and furnishing of such service to the public. Duke Energy Indiana directly supplies electric energy to approximately 800,000 customers located in 69 counties in the central, north central and southern parts of the State of Indiana. It also sells electric energy for resale to municipal utilities and to other public utilities that in turn supply electric utility service to numerous customers in areas not served directly by Duke Energy Indiana.

3. **Relief Requested in this Cause.** In its Verified Petition, Duke Energy Indiana requested the Commission enter a Final Order: approving the four separate PPAs, each for five megawatts ("MWs") of solar power; providing for the recovery of the retail jurisdiction portion of the purchased power costs under the PPAs through rates; approving the confidential treatment of the pricing and other proprietary terms of the individual PPAs; approving a modification to its ARP, most recently approved in Cause No. 44283, for an additional program offering under Duke Energy Indiana's GoGreen Rider; and granting all other relief as appropriate in the premises.

4. **Duke Energy Indiana's Case-in-Chief.** Duke Energy Indiana presented the testimony of three witnesses in its case-in-chief: Mr. James S. Northrup, Director, Wholesale and Renewables Analytics for Duke Energy Indiana; Ms. Christine E. Smith, Product and Services Manager for Duke Energy Indiana; and Ms. Suzanne E. Siefertman, Manager Rates and Regulatory Strategy for Duke Energy Indiana.

Mr. Northrup outlined: Duke Energy Indiana's issuance of solar requests for proposal ("RFP") to secure the most cost-effective solar resources available in the market; the four solar proposals selected from the RFP totaling 20 MWs alternating current ("AC") and their associated proposed contracts; the RFP economic valuation methodology utilized to select the winning solar proposals; the economic value of the solar projects for Indiana customers; and the benefits of new solar generation to the Indiana generation portfolio.

Mr. Northrup identified the four winning proposals from the Solar RFP, which total 20 MWs AC as Sullivan Solar, LLC; McDonald Solar, LLC; Pastime Farm, LLC; and Geres Energy, LLC. Mr. Northrup further testified that all four solar projects are five MWs AC, with each of the PPAs having a 20-year contract duration.

Mr. Northrup explained the solar RFP economic evaluation process. He testified that Duke Energy Indiana issued a solar RFP to assist in the selection of cost effective solar resources to expand and diversify its generation portfolio with emission-free renewable solar energy. By adding solar generation to Duke Energy Indiana's portfolio, Mr. Northrup testified that Duke Energy Indiana will gain experience in contracting and operating utility scale solar facilities and increase customer awareness of the opportunity for "home grown" renewable energy to meet a portion of its consumption needs. Also, securing solar resources enables Duke Energy Indiana to comply with the August 28, 2013, settlement agreement with various environmental groups to resolve the issues for the Edwardsport air permit. Mr. Northrup testified that utilizing an open market RFP solicitation allowed Duke Energy Indiana to secure a reasonable amount of the most cost effective solar resource alternatives that the market provided in response to the RFP.

Mr. Northrup testified that on February 3, 2014, Duke Energy Indiana issued an RFP requesting proposals for energy, capacity, and RECs from new or existing solar generating facilities. He explained that the RFP requested projects to have minimum sizes of one MW AC, with maximum sizes not to exceed five MW AC, with a contract term duration of 20 years, and that proposals were required to include pricing on a \$/MWh basis, demonstrate project site controls, and demonstrate sufficient relevant experience and expertise to successfully develop, finance, construct, and operate the project. Mr. Northrup testified that preference was given for those projects located in Duke Energy Indiana's service territory and no project could currently be under contract to Duke Energy Indiana. The overall objective of the RFP was to secure the most cost effective solar resources in the specified size range that the market could provide.

Mr. Northrup testified that the response to Duke Energy Indiana's solar RFP was favorable in that it received proposals from 25 different counterparties totaling 49 bid responses amounting to 193 MWs AC of proposed solar resource capacity. Under Mr. Northrup's supervision, all proposals were economically evaluated to determine which proposals provided the best value to Duke Energy Indiana customers. Mr. Northrup explained that the economic analysis process was designed to consider both the potential benefits and costs associated with each proposal to capture variations in generation profiles and PPA payments resulting from different solar equipment technology, site characteristics, and equipment configurations. The economic analysis produced a levelized "net project cost" per mega-watt hour ("MWH") value for each project by comparing (or subtracting) the project's benefits and costs for the 20-year contract period. The levelized "net project cost" per megawatt-hour value provided the basis for ranking projects from high to low allowing the highest value proposals to be selected.

Mr. Northrup further testified that the project benefits were determined by calculating the value of energy and capacity produced by each project using the estimated solar energy production profile applied to avoided capacity and energy costs. Because future energy and capacity costs are avoided by undertaking the project, he explained that these avoided costs represent a project benefit to customers.

Mr. Northrup testified that RFP bidders were not required to complete the transmission/distribution interconnection process to the electrical grid prior to submitting their proposals and as a result, the initial economic analysis ranking did not include the potential costs for interconnection facilities. Rather, Duke Energy Indiana elected to develop a short list of the highest economically ranked projects that would then undergo interconnection cost assessments and final economic evaluations, including all costs for final selection. Mr. Northrup explained that the short list included 60 MWs of the 16 highest economically ranked proposals to cover a wide range of possible interconnection cost estimates. Duke Energy Indiana's Confidential Exhibit A-3, the listing of the 16 highest ranked projects, was forwarded to Duke Energy Indiana's engineering specialists for site specific evaluation and interconnection cost analysis on the short-listed projects so that the costs could be incorporated into the final project selection analysis.

Mr. Northrup testified that the first step in the interconnection analysis was to confirm all projects were in Duke Energy Indiana's service territory to allow interconnection to Duke Energy Indiana's electrical facilities. After confirmation, site assessment considered the amount of installed solar capacity; distance from the distribution substation; the peak, minimum and average circuit loadings at multiple points along the circuit; and the wire conductor sizes and configurations between the site and the rest of the circuit. These site specific characteristics were used to determine the appropriate electrical system interconnection equipment and potential network upgrades necessary for continued reliable operation of the electrical grid with the addition of the proposed solar facility.

Mr. Northrup also testified that the results of the interconnection analysis costs were shared with the bidders and then the bidders were asked to provide refreshed PPA proposals with their best and final pricing, including the estimated interconnection costs. Project interconnection costs for each project were stated in the RFP to be the responsibility of the respondent and had to be included in the final refreshed proposals.

Mr. Northrup testified that the refreshed proposals were again economically ranked from highest to lowest value to determine which proposals would go forward for detailed contract negotiations. The final results of the refreshed ranking were summarized in Duke Energy Indiana's Confidential Exhibit A-4, which showed the four highest ranked projects. These four projects were then selected for detailed contract negotiations. All four projects were five MWs in size, which satisfied the Edwardsport air permit settlement agreement requirements and allowed Duke Energy Indiana to gain significant experience in operating large scale solar facilities on its distribution facilities throughout its service territory.

Mr. Northrup testified as to the estimated total cost of the four PPAs over the 20-year contract life, which would provide approximately 38,500 MWH of solar generation in the first full year of operation.

Mr. Northrup further testified that all negotiations have been completed and contracts have been executed. The major contract provisions included: (1) a condition precedent stipulating that Commission approval is required; (2) established minimum operating

performance standards and performance security; (3) specified due diligence periods to complete Interconnection Agreements; and (4) certain responsibilities associated with being a Behind the Meter Generation (“BTMG”) market participant. Mr. Northrup submitted the final copies of the executed Agreements for review and reference as Duke Energy Indiana’s Confidential Exhibits A-6 through A-9.

Mr. Northrup also testified that Duke Energy Indiana’s 2013 Integrated Resource Plan (“2013 IRP”), updated with the Spring 2014 load forecast, provided the basis for the economic analysis. Production costing runs were performed with and without each solar project’s generation profile in order to calculate each project’s avoided energy costs. He testified that both the IRP reference scenario including potential CO₂ costs for greenhouse gas legislation modeling and no CO₂ costs for IRP low regulation scenario were used to produce the avoided energy costs. Mr. Northrup testified that the solar contract PPA payments were compared to the avoided production cost plus avoided capacity cost to determine the economics of the four combined solar projects.

Mr. Northrup testified as to the results of the analysis, stating that over the 20-year term of the solar PPAs, the avoided costs in both the “With CO₂” and “Without CO₂” cases were higher than the PPA payments. He explained that this means that the solar PPAs are economical for customers as compared to not having the PPAs included in the generation resource portfolio. Mr. Northrup explained that this analysis is conservative because it does not take into account the value of the RECs that are included in the solar PPA contracts. Duke Energy Indiana’s Confidential Exhibit A-5 was submitted, which illustrated the year-by-year comparison of the avoided cost versus the PPA payments for both scenarios “With CO₂” and “Without CO₂.”

Mr. Northrup also testified as to the expected value of the RECs, stating that the value of RECs were not included in the economic analysis in an effort to be conservative. In this proceeding Duke Energy Indiana has proposed that the retail portion of any value received from the sale of these RECs flow through to the benefit of retail customers through the fuel adjustment clause.

Mr. Northrup also testified as to the benefits of the solar PPAs to Duke Energy Indiana and its customers, stating that these projects provide Duke Energy Indiana’s customers with “home grown” sources of clean, sustainable, renewable energy without emissions at long term stable prices; Indiana customers will be able to purchase locally sourced green power renewable RECs for its GoGreen program; and most importantly, it is economical for customers as demonstrated by the economic analysis discussed earlier.

Mr. Northrup testified that the four solar PPAs being proposed for the Commission’s consideration are reasonable and necessary and will provide Duke Energy Indiana customers the opportunity to participate in the development and consumption of economically clean solar energy produced locally. Mr. Northrup further concluded that of the 49 proposed projects that Duke Energy Indiana reviewed through the open market RFP, the four selected represent the most cost-effective solar project bids received in response to the RFP.

Ms. Christine E. Smith explained Duke Energy Indiana's request for a modification to the alternative regulatory plan approved in Cause No. 44283 for flexibility to consider the inclusion of RECs from Duke Energy Indiana's solar PPAs in the Indiana GoGreen program for the benefit of customers participating in that program.

Ms. Smith explained Duke Energy Indiana's GoGreen program as a voluntary customer program providing a convenient and affordable option for customers to invest in renewable energy. She testified that GoGreen Indiana customers participate in and promote green power generation through their monthly electric utility bill, by paying \$0.90 per 100 kWh block, with a minimum two block monthly purchase. The program currently offers a competitively-priced green power rate for retail customers by aggregating participation to purchase volume Green-e certified wind RECs on the open competitive market. Ms. Smith testified that the collective amount of GoGreen funds received must be sufficient to purchase a load matching level of RECs and to continue supporting the GoGreen service offering. Under the approved settlement agreement in Cause No. 44283, the rate charged to GoGreen customers for renewable energy can be adjusted to reflect market conditions by adjusting the price and/or size of the green power blocks. Duke Energy Indiana monitors contributions to fully cover the cost of the program.

Ms. Smith also testified as to the changes Duke Energy Indiana was proposing to its GoGreen program in this proceeding, which would continue to be in compliance with the terms stated in the most recent settlement agreement approved by the Commission in Cause No. 44283. Those proposed changes are: (1.) as RECs from Duke Energy Indiana's solar generation projects located in Indiana become available, the GoGreen program would have the opportunity to purchase the Duke Energy Indiana certified RECs associated with any of the four PPAs in Indiana on behalf of GoGreen participants at the established market price, or to buy national RECs on an open market, or both; (2.) Duke Energy Indiana seeks approval to file its Annual Report on GoGreen under seal; and (3.) Duke Energy Indiana seeks approval for pricing flexibility in the event that it becomes necessary to increase the GoGreen rate above \$0.90 in order to provide sufficient funding to offset the cost of including locally generated solar RECs in the inventory portfolio. Specifically, Duke Energy Indiana seeks authority to increase the customer charge by no more than 25% with 60 days advance notice to customers if such an increase is justified by demand for locally generated RECs. Otherwise, there are no Tariff changes proposed at this time, provided the current program rate of \$0.90 per 100 kWh block will allow for the inclusion of Duke Energy Indiana solar RECs in the GoGreen portfolio. Ms. Smith further testified that Duke Energy Indiana would update its marketing messages to reflect the local renewable generation if supported by the GoGreen participants.

Ms. Smith testified that Duke Energy Indiana was proposing these changes as they will differentiate the GoGreen program as a program supporting local renewable energy, increase satisfaction and loyalty from its participants, provide a good market for renewable generation projects that need the support of REC buyers to get started, and generate economic benefits in Indiana. Ms. Smith testified that Duke Energy Indiana's GoGreen surveys and emails show participants want utility investment in renewable energy and in particular solar. By adding this option, Duke Energy Indiana will be responding to customer demand. Ms. Smith further testified that if these changes are approved, GoGreen Indiana could offer customers the option to purchase locally generated renewable energy from solar RECs in Indiana. In addition, the

availability of local RECs may increase customer satisfaction among the GoGreen participants, which may increase program participation. As participation increases, there may be more support for renewable energy projects in Indiana that provide economic and environmental benefits for all customers in the community.

Ms. Sieferman explained the ratemaking treatment and relief requested in this proceeding advising that Duke Energy Indiana was seeking approval of: (1.) four solar energy PPAs for five MWs each for a total of 20 MWs of solar energy to be in commercial operation no later than March 31, 2016; (2.) full and certain recovery of the retail jurisdictional portion of the purchased power costs under the PPAs from retail customers in conjunction with Duke Energy Indiana's Fuel Cost Adjustment Standard Contract Rider No. 60 ("Rider 60" or "FAC"), or successor mechanism proceedings, for the entire 20-year term of these PPAs; and (3.) ability to sell the RECs associated with the four solar energy PPAs at market price to the Indiana GoGreen program or an affiliated company, on equal footing with sales to third parties on an open market and flow the proceeds from those sales through to customers via the FAC proceeding. Additionally, Duke Energy Indiana requested that the Commission issue an Order containing these determinations no later than the end of July 2015.

Ms. Sieferman further testified as to the cost recovery Duke Energy Indiana is seeking in this proceeding. Duke Energy Indiana proposed timely cost recovery for the full terms of the Agreements for the retail portion of the costs associated with the commitment under the PPAs to purchase for use by native load customers approximately 20 MW of solar power for a 20-year period. Duke Energy Indiana further proposed retail cost recovery be accomplished through the FAC tracker administered under Rider 60, or a successor mechanism.

Ms. Sieferman testified that Duke Energy Indiana was proposing that the full cost of the solar power purchases be included as a recoverable native load fuel cost, not subject to the application of the purchase power benchmark, which is identical to the Commission-approved treatment of Duke Energy Indiana's existing PPAs with Benton County Wind Farm and Purdue Energy Park, Cause Nos. 43097 and 44444, respectively. These solar PPAs provide for a single \$/MWH rate to be paid based on actual generation levels, and as such, full recovery through the FAC process is appropriate.

Ms. Sieferman testified that comparing the long-term contractual prices of these solar power purchases to benchmarks designed to set the cost of fuel for short-term economy purchases from traditional sources of energy is not appropriate. She referred to Mr. Northrup's testimony where he indicated that the solar PPAs were evaluated as a whole over their entire 20-year lives and not evaluated as to whether they would be economic for each and every hour of the term. She further explained that subjecting a solar power purchase to hourly economic evaluation ignores the unique nature of this renewable energy technology and the environmental, economic development, and societal benefits associated with the solar energy projects. Ms. Sieferman further testified that, as determined in Cause No. 41363, utilities are permitted to recover above-benchmark purchases following a determination by the Commission that such purchases are reasonable. Therefore, Duke Energy Indiana requests that the Commission make a determination of reasonableness for the solar power purchases for the entire term of each contract due to the unique nature of solar power, rather than making a determination in each

future FAC proceeding.

Ms. Sieferman further testified that Duke Energy Indiana was proposing to treat the purchased power costs associated with these PPAs as a designated native load resource by placing them at the bottom of the hourly economic stacking of generating resources and purchased power. She explained that, because solar resources are non-dispatchable and operate continuously during daylight periods, solar resources are treated in a similar fashion as other non-dispatchable generation facilities that are first in line to serve designated native loads.

Ms. Sieferman also testified as to how Duke Energy Indiana was proposing to recover the PPA costs. Ms. Sieferman testified that these PPA costs would follow the standard FAC methodology. The costs incurred under the PPAs would be included in developing the fuel cost factor to be applied to retail sales and would be reconciled in future periods to actual retail sales as a part of the standard FAC reconciliation. She explained that these solar PPA costs would be allocated between retail and native wholesale jurisdictional sales using the same methodology as is used for the other costs included in the FAC.

Ms. Sieferman also described how Duke Energy Indiana would pass the value of the RECs from these solar PPAs back to customers. Ms. Sieferman testified that it was Duke Energy Indiana's intent to monetize the RECs, either through sales on the open market or through sales to the Indiana GoGreen program or an affiliated company, at market prices. The net proceeds from the sales of RECs obtained through these PPAs would be used to reduce the fuel cost to be included in the FAC calculation. The net proceeds from the sales would be shown on a separate line (along with any proceeds from the sale of wind RECs) in Duke Energy Indiana's quarterly FAC filings, as a credit reducing the total fuel cost to be included. Ms. Sieferman also testified that if Duke Energy Indiana becomes subject to a renewable portfolio standard in the future, the RECs would be maintained and counted toward its required renewable energy percentage.

Ms. Sieferman testified that customer benefits through the FAC could actually be increased as a result of lower administrative fees if solar RECs were sold to the Indiana GoGreen program or an affiliated company rather than on the open market utilizing a broker. Any sales of the solar RECs to the Indiana GoGreen program or an affiliated company would be at prevailing market prices, identical to a third-party sale on the open market. However, sales to the Indiana GoGreen program or an affiliated company would not require the additional administrative fees associated with utilizing a broker to sell the RECs on the open market. As a result, the net proceeds to flow back to customers would be increased by the amount of the avoided broker fees. Ms. Sieferman testified that Duke Energy Indiana would include the net proceeds from any sales as a reduction to native fuel cost in its FAC filings.

Ms. Sieferman further testified that the proposed treatment of these solar PPA costs should not be a burden upon or slow down the processing of the quarterly FAC. Duke Energy Indiana will pay for the purchased power on a monthly basis based on invoices rendered to Duke Energy Indiana. Those invoices would then be provided to the OUCC's auditor, as are other fuel and purchased power invoices that are chosen as part of the audit sample. She explained that if solar RECs received as a part of these PPAs are sold, any associated documentation would also

be provided to the OUCC for auditing. Confidential treatment for the pricing associated with these PPAs was requested by Duke Energy Indiana.

Ms. Sieferman testified as to the estimated annual costs associated with these solar PPAs. She also noted that these costs are not incremental costs to native customers, as the purchases under these four solar PPAs will displace the cost of the highest cost generation or purchase resource at the top of the native stack that otherwise would have served native load. The difference between the cost of these PPAs and the displaced cost would be the impact on the fuel costs that would be subject to the FAC. Depending on the hour, the displaced cost may be greater than the cost of these PPAs, such as when natural gas peaking units would be displaced, or may be less than the cost of the PPAs.

Ms. Sieferman further testified that Duke Energy Indiana was not asking for any special incentives related to these power purchases, only for the opportunity to recover the retail jurisdictional costs associated with these power purchases in a timely manner. She testified that subjecting these approximately 20 MW of long-term solar PPAs, with their unique characteristics and benefits, to the same standards as spot energy purchases from more traditional resources, such as requiring the power purchase price to be below a benchmark, or economically stacking the power on an hour-by-hour basis, does not provide the appropriate incentives the legislature intended and inappropriately shifts more risk to the utility.

Ms. Sieferman concluded her direct testimony stating it was her opinion that these solar PPAs were reasonable and necessary and would provide customers with clean energy that is economical.

5. OUCC's Case-in-Chief. The OUCC presented testimony of two witnesses in its case-in-chief: Ms. Susann M. Brown, a Utility Analyst, and Barbara A. Smith, Director of the OUCC's Resource Planning and Communications Division.

Ms. Susann M. Brown, Utility Analyst in the Resource Planning and Communications Division of the OUCC, evaluated Duke Energy Indiana's proposal for four solar energy PPAs, assessed Duke Energy Indiana's proposed transfer of some of the associated RECs to its GoGreen Program and to companies affiliated with Duke Energy Indiana, discussed recommended reporting and disclosure requirements, and presented the OUCC's recommendations.

Ms. Brown testified that the RECs from all four solar projects would be Green-e certified, which means that RECs would not be double-counted and would give independent consumer protection for the transfer of renewable energy and greenhouse gas reductions in retail markets. This certification would provide for and verify compliance with REC trading rules.

Ms. Brown explained that Duke Energy Indiana was proposing intra-company trading when solar RECS were transferred from the solar PPA to Duke Energy Indiana's GoGreen program or to an affiliated company. Also, third-party off-market transactions could occur. These transactions are not the same for Duke Energy Indiana's wind RECs, since all of the wind RECs are bought and sold through the market.

Ms. Brown testified that Duke Energy Indiana was proposing the purchase of solar energy through solar PPAs to meet Duke Energy Indiana's commitments under a settlement agreement impacting the approval of its application for an air permit from the Indiana Department of Environmental Management for Duke Energy Indiana's Edwardsport air permit settlement agreement.

Ms. Brown explained how Duke Energy Indiana was proposing to handle the solar REC intra-company transfer to Duke Energy Indiana's GoGreen program. First, Duke Energy Indiana's GoGreen program would initiate the request to transfer local solar RECs and/or purchase regional Green-e wind RECs. Next, Duke Energy Indiana's GoGreen program would determine the REC mix for the 100 kWh block based on the quote, and it is anticipated that no more than 10% of any 100 kWh block would be local solar RECs and between 90-100% would be regional Green-e wind RECs. The REC transfer would then be confirmed and the contract completed. A REC tracking system, most likely the Midwest Renewable Energy Tracking System ("M-RETS"), would then retire RECs for Duke Energy Indiana's GoGreen program and the REC costs would be paid through that program.

Ms. Brown further explained that Duke Energy Indiana would own the solar RECs associated with the four PPAs and that Duke Energy Indiana's GoGreen program did not plan to purchase solar RECs from only the proposed local solar generation projects. Duke Energy Indiana's GoGreen program would continue to purchase wind RECs and add its own local solar RECs, depending on market price and availability, with a preference to maximize the local Duke Energy Indiana solar RECs in the GoGreen program portfolio. Ms. Brown testified that at current solar REC prices, \$40.00 per solar REC, less than 10% of GoGreen inventory would be purchased from Duke Energy Indiana's solar projects.

Ms. Brown testified that Duke Energy Indiana customers, through the FAC proceedings, would receive the net benefits from the REC transfers. Ms. Brown further testified that Duke Energy Indiana plans to monetize the RECs through sales on the open market, through transfers to its GoGreen program, or through transfers to an affiliated company. The transfer of RECs to Duke Energy Indiana's GoGreen program or an affiliated company would allow Duke Energy Indiana to avoid administrative and brokerage fees; however, these market brokerage and administrative fees appear to be minimal.

Ms. Brown testified that the OUCG had concerns with Duke Energy Indiana's proposed transfer of solar RECs at established market prices to either its own GoGreen program or to affiliate companies, as it is not clear which specific REC market Duke Energy Indiana plans to use to set proxies of market prices. Ms. Brown testified that the OUCG would prefer that REC pricing be established in widely-recognized competitive markets and that, as the program grows, the OUCG would like to see Indiana solar RECs traded through an established solar REC market. The OUCG is concerned that the development of the REC market could be negatively impacted over time if utilities transfer their RECs off-market as removing buyers, sellers, and large numbers of RECs from current REC markets could negatively impact further market development.

Ms. Brown testified that the OUCC supports permitting intra-company transfers to Duke Energy Indiana's GoGreen program and inter-company transfers to affiliated companies at this time. Since Indiana's solar REC market is starting to develop, the OUCC recommends that the Commission set a sunset date (two or three years after the solar facilities have been in operation) on authority granted to Duke Energy Indiana in this case, permitting intra-company and inter-affiliate transfers of RECs and other off-market REC sales. When that review is undertaken, the OUCC recommends using a sub-docket of Duke Energy Indiana's GoGreen program, to allow the Commission, the OUCC and other interested parties, to examine the fairness and impact of intra-company, inter-affiliate, and other off-market transfers of RECs under the four solar PPAs approved in this case.

Ms. Brown testified that Duke Energy Indiana should provide under Rider 60 in the future FAC proceedings, at a minimum, the information offered to support the market price of solar RECs including the following for each transfer: the names of all parties to the transaction; the transfer date; the number of RECs transferred; the actual price per REC that was used; the total payment or value received; the market price of solar RECs on the transaction date; the name of the sources used to establish the proxy market price; and copies of all supporting documentation.

Ms. Brown further testified that the OUCC recommends that Duke Energy Indiana file an initial Solar Project Report with the following information for each of the four solar generation facilities: project name(s); project name(s); names, titles, addresses and phone numbers of primary contact person(s); specific locations, including street addresses; number and configuration of arrays and total number of panels, by facility; anticipated output per panel, per array, and total output for each solar facility; manufacturer, model number, and operational characteristics of each type of panel used; copies of all interconnection system impact studies for each facility; expected in-service (commercial operation) dates; and an estimate of the engineering/construction timeline and critical milestones for each solar facility.

Ms. Brown testified that the OUCC also recommends that Duke Energy Indiana file subsequent annual updates on the status of the four solar projects. The annual solar project update reports should include: any changes to the information in the initial solar project report; any annual solar project updates; and a monthly summary of actual generation output for each facility.

The OUCC recommended that Duke Energy Indiana commit to providing more detailed generation performance data by facility, if requested by the Commission or the OUCC. The OUCC is requesting the additional detailed generation performance data so OUCC staff can understand and investigate the effectiveness and efficiency of various renewable energy generation resources. The OUCC also recommended that, in addition to the annual reporting requirements already approved in Cause No. 44283, the Commission should require Duke Energy Indiana to address the following additional areas in future GoGreen annual reports: the impact of using RECs from these four solar projects on GoGreen program costs per REC (detailing commodity, administrative and marketing costs); customer participation levels; the total number of RECS used in Duke Energy Indiana's GoGreen program; and an estimate of the brokerage fees avoided by not using an established REC market to buy and sell RECs.

Ms. Brown further testified that the OUCC wanted Duke Energy Indiana's GoGreen marketing materials and/or annual GoGreen program reports to inform GoGreen customers that some of the RECs used for the GoGreen program may be from local Duke Energy Indiana solar generation. The OUCC did not recommend any other changes to the current GoGreen program.

In conclusion, Ms. Brown summarized the OUCC's recommendations regarding Duke Energy Indiana's request as follows: approve the four proposed solar PPAs with a total combined capacity of 20 MW; approve Duke Energy Indiana's request to recover from its retail customers the retail jurisdictional portion of purchased power costs under the four proposed PPAs in conjunction with Duke Energy Indiana's Rider 60 adjustments in future FAC proceedings; require Duke Energy Indiana to file in this Cause an initial Solar Project Report for each of the four solar PPAs and to file subsequent annual updates; require Duke Energy Indiana to keep adequate records and file sufficient information in future Rider 60 adjustment filings to verify that FAC customers have received the full benefit of RECs associated with these four solar PPAs; require Duke Energy Indiana to expand future GoGreen annual reports to address the impact of using local solar RECs on GoGreen program costs per REC (detailing commodity, administrative and marketing costs), customer participation levels, the total number of RECs used in its GoGreen program, and an estimate of the brokerage fees avoided by not using an established REC market to buy and sell RECs; require Duke Energy Indiana to disclose the fact that its GoGreen program may use RECs from one or more of the four solar facilities covered by the Duke Energy Indiana PPAs approved in this case; and request that the Commission set a sunset date on any authority Duke Energy Indiana receives in this case permitting intra-company or inter-affiliate transfers of RECs or other off-market sales of RECs. Ms. Brown recommended that the sunset date be two to three years after these solar facilities have been in operation. At that time, the OUCC recommends using a sub-docket of Duke Energy Indiana's GoGreen program (e.g., Cause No. 44283-S1) to allow the Commission, the OUCC, and other interested parties to examine the fairness and the impact of the off-market transfer of RECs under the 20-year solar PPAs approved in this case.

Ms. Barbara A. Smith, Director of the Resource Planning and Communications Division of the OUCC ("Director Smith"), summarized her analysis of Duke Energy Indiana's RFP process and its plans for interconnecting these solar distributed generation projects to its distribution system.

Director Smith testified that she was aware of the Edwardsport air permit settlement agreement and its requirement that Duke Energy Indiana either construct or purchase under PPAs 15 MWs of distributed renewable generation by March 31, 2016, with at least five MWs of solar generation. Director Smith testified that based on the OUCC's experience with renewable generation projects, she agrees with Duke Energy Indiana that it is not uncommon for solar projects to fail, often due to a lack of financing. To be prudent, Duke Energy Indiana over-subscribed the 15 MW requirement under the Edwardsport air permit settlement in case one of the solar project developers was unable to complete one of the selected projects on time. Accordingly, Director Smith testified that she was not concerned by Duke Energy Indiana's decision to include an additional five MW of capacity to ensure that Duke Energy Indiana would be able to meet all requirements under the Edwardsport air permit settlement.

Director Smith testified as to the requirements in Duke Energy Indiana's RFP. She indicated that the RFP process was fair, since the RFP drew numerous bid proposals, which were screened using the same economic analysis. Director Smith further testified as to Duke Energy Indiana's ranking process for each of the qualifying bids, and based on her review of the confidential bids, Duke Energy Indiana's short list appeared to be equitable and consistent with economic requirements of the RFP. Director Smith further stated that the bidders that made Duke Energy Indiana's short list submitted well-constructed applications and preliminary designs with the lowest net project costs. Director Smith confirmed that all four PPAs have been executed and agreed prices have been set based on 20-year contract terms. The four PPAs make solar developers financially responsible for any cost over-runs. Therefore, no additional costs will be passed through to Duke Energy Indiana or its customers.

Director Smith testified as to how the four solar generators would interconnect with Duke Energy Indiana's electric system at a distribution voltage level. All projects would be metered at the primary voltage level, with means to automatically isolate the solar facilities from Duke Energy Indiana's distribution system. These solar projects would be considered "behind-the-meter-generation." Therefore, the Midcontinent Independent System Operator, Inc. ("MISO") will view the solar generation as a reduction in Duke Energy Indiana's load. As such, these projects would not be subject to the MISO Tariff or any associated MISO reporting requirements. Director Smith testified that Duke Energy Indiana would be responsible for the procuring and installing of the interconnection equipment. However, in turn, the solar developers must reimburse Duke Energy Indiana for those interconnection costs. Director Smith further testified that Duke Energy Indiana confirmed that the line of demarcation is drawn at the meter, with all equipment from the metering point toward the solar facilities owned and maintained by the solar project developers.

Director Smith also testified that Duke Energy Indiana is not responsible under the PPAs for any on-going power purchases or site decommissioning after the 20-year contract term has expired. She testified that Duke Energy Indiana has taken steps to ensure the protection of its distribution system from power quality issues that could arise from the distributed generation. Furthermore, Duke Energy Indiana's interconnection equipment would disconnect the solar facilities if they operate outside the PPA limits. Duke Energy Indiana also requires the solar facility owners to maintain liability insurance. The PPAs include indemnification language to protect Duke Energy Indiana and its customers from any resulting financial harm.

Director Smith concluded her testimony by stating that the OUCC recommends approval of Duke Energy Indiana's four proposed solar PPAs, subject to its compliance with OUCC recommendations that the Commission approve for this case.

6. The Duke Industrial Group's Case-in-Chief. Mr. Nicholas Phillips, Jr., a consultant in the field of public utility regulation and a Managing Principal of Brubaker & Associates, Inc., testified as to Duke Energy Indiana's request for approval of four solar PPAs and cost recovery of those agreements through tracking mechanisms for a 20-year period.

Mr. Phillips testified that the driver for this proceeding appears to be Duke Energy Indiana's obligation under a settlement agreement with certain parties for the Edwardsport air permit. Shareholders should be responsible for any obligations under the settlement agreement, not ratepayers. Duke Energy Indiana should not be allowed to burden ratepayers with additional costs through a tracking mechanism because of its agreement. Furthermore, Duke Energy Indiana has not demonstrated the need for additional capacity. To the contrary, Duke Energy Indiana's 2014 Summer Reliability presentation shows Zonal Resource Credit ("ZRC") sales of 734 MW, which is basically excess capacity.

Mr. Phillips noted that Duke Energy Indiana's most recent IRP completed in 2013, did not call for the addition of any solar capacity until 2018. Duke Energy Indiana also noted that the cost of solar generation is declining. The solar projects are not reasonable or necessary at this time. Deferring solar purchases until Duke has a need for capacity and presents an economic analysis showing it is a least cost option is a preferred approach.

Mr. Phillips testified that Duke Energy Indiana does not need additional experience with solar capacity. Duke Energy Carolinas has presented testimony in North Carolina with concerns about too much solar capacity on its electric system. Duke Energy Renewables is a subsidiary that has experience with 23 solar farms.

Additionally, Mr. Phillips noted that the abbreviated economic analysis Duke Energy Indiana does present in this case is inconsistent with its IRP analysis. Duke Energy Indiana's testimony claims that 20 MW of solar nameplate capacity translates into 14 MW of equivalent capacity. However, Duke Energy Indiana's filed 2013 IRP indicates solar nameplate capacity is equivalent to 42% of capacity available to meet peak demand which results in equivalent capacity of 8.4 MW. Duke Energy Indiana's ratepayers are currently subject to numerous trackers, charging additional costs to ratepayers through tracking mechanisms should not be allowed. Solar capacity costs should not be allowed in the fuel cost tracker. Solar capacity is not fuel, volatile or necessary to serve customers. The FAC proceedings have involved excess coal inventory issues and additional solar capacity may complicate this issue.

Mr. Phillips noted that if the Commission grants solar capacity cost recovery through a tracking mechanism, the cost should be allocated to classes on a demand factor. However, there is an issue with the accuracy of Duke Energy Indiana's demand factors because they were developed based on 2002 data, which is no longer reflective of current usage characteristics of certain customer classes. Duke Energy Indiana should be required to update its demand allocation factors.

Mr. Phillips concluded his testimony by outlining his recommendations to the Commission. Mr. Phillips recommends that Duke Energy Indiana establish the need for additional capacity prior to cost recovery; that Duke Energy Indiana should draw on the solar experience of its sister companies; that any economic analysis should be transparent and consistent with Duke Energy Indiana's 2013 IRP; that long-term fixed contracts are not costs appropriate for a tracking mechanism and should be considered in a base rate case; that if the Commission allows the purchase and a tracker recovery, the costs should be allocated to classes

on a demand allocator reflective of current customer usage characteristics; and that Duke Energy Indiana should be required to file and seek approval of updated demand allocation factors.

7. Duke Energy Indiana's Rebuttal Testimony. Mr. James S. Northrup, Ms. Christine E. Smith, and Ms. Suzanne E. Sieferman filed testimony in rebuttal to the testimony of the OUCC and the Duke Energy Indiana Industrial Group.

Mr. Northrup addressed the OUCC's request to the Commission to require Duke Energy Indiana to file an initial solar project report for each of the four solar PPAs with subsequent annual updates. Mr. Northrup testified that Duke Energy Indiana agrees to provide general annual status project reports for the four solar facilities, subject to appropriate protections, that include the following: project status, annual MWH generation, annual capacity factors, and any issues that have had material impacts on the annual operation and generation of the four solar facilities.

Mr. Northrup also addressed the Industrial Group's concerns. Mr. Northrup disagreed with the Industrial Group that the driver of this cause of action was based solely on Duke Energy Indiana's obligations under a settlement agreement. He discussed the Industrial Group's position that Duke Energy Indiana rate payers should not be responsible for the additional costs of the project. Mr. Northrup testified that Duke Energy Indiana pursued the addition of cost effective solar resources to expand and diversify its generation portfolio, allowing Duke Energy Indiana to gain experience in contracting and operating utility scale solar facilities in Indiana, and to increase customer awareness of the opportunity for "home grown" renewable energy at long-term stable prices. Although securing the solar resources enables Duke Energy Indiana to comply with the Edwardsport air permit settlement, Duke Energy Indiana customers also benefit from these solar resources, because the solar PPAs are economical as compared to not having the PPAs included in the generation resource portfolio. Further, the economic analysis performed, demonstrated that the present value of savings to customers from these projects is positive before even considering the potential value of associated RECs.

Mr. Northrup addressed the Industrial Group's concern that Duke Energy Indiana has not demonstrated the need for additional capacity. Mr. Northrup testified that the 2013 IRP indicated additional capacity resources could be added beginning in 2018 as customer energy needs grow and generation capacity retirements take place. Furthermore the 2013 IRP calls for the addition of more than 2,000 MWs of new capacity resources to meet customer needs during a 20-year period. By April of 2016, 616 MWs of coal generation from Wabash River Units 2-6 will be retired. The proposed solar PPA contracts will provide 20 years of long-term capacity beginning in 2016. There is a clear need for the capacity that these long term PPAs provide.

Mr. Northrup addressed the Industrial Group's concern that the 2013 IRP did not call for the addition of any solar capacity until 2018; and the Industrial Group's position that the solar projects are not reasonable or necessary at this time. Mr. Northrup testified that the 2013 IRP called for the addition of 60 MWs of solar resource beginning in 2018. This scenario assumed an initial minimum level of solar mandate of approximately 1% of total sales by 2020 and rising thereafter (approximately 20 MWs to 70 MWs per year). Therefore, the proposed 20 MWs of solar PPAs represent a small first step toward diversifying Duke Energy Indiana's generation

portfolio with emission-free renewable solar energy. Furthermore, with the retirement of the Wabash River Units, the timing of the long-term solar PPAs fit nicely into Duke Energy Indiana's long-term resource planning.

Mr. Northrup addressed the Industrial Group's concern that Duke Energy Indiana should defer solar purchases until it has a need for capacity and presents an economic analysis showing it is a least cost option. Mr. Northrup testified that Duke Energy Indiana anticipates it will require significant resource capacity additions due to increasing customer energy needs and normal generation capacity retirements, due to the age of the units and new environmental regulations. Furthermore, with the 2016 commercial operation date for the proposed solar resources, Duke Energy Indiana's customers will be able to take full advantage of lower costs from the Federal tax incentives that are included in the PPA pricing, because solar resources that become operational prior to the end of 2016 can take advantage of a 30% Federal tax benefit from the Investment Tax Credit for renewable resources. However, if the resources come online after 2016, it is limited to a 10% Federal Investment Tax Credit. Furthermore, the PPAs provide Duke Energy Indiana customers potential additional revenues from sales of solar RECs; therefore, the PPAs have been demonstrated as cost effective additions to Duke Energy Indiana's supply portfolio.

Mr. Northrup testified that there are significant differences between the Indiana and Carolinas electrical transmission and distribution equipment and configurations, generation portfolios, the MISO Regional Transmission Organization operating procedures, and expected solar generation performance. In fact, Duke Energy's experience with renewables in the Carolinas has emphasized the importance of gaining experience with the unique interactions between solar and the electrical distribution systems. Adding the proposed solar facilities would allow Duke Energy Indiana to gain the necessary experience in planning and operating large scale solar facilities on its electrical distribution facilities to maintain customer energy delivery reliability in anticipation of expected future Indiana solar customer facility additions. In addition, Duke Energy Carolinas has found that increasing levels of solar penetration can result in increased operating costs to integrate higher levels of solar capacity on its electrical system. Gaining experience in Indiana will assist Duke Energy Indiana in developing a better understanding of the potential for similar increased costs of operation for higher levels of solar penetration.

Mr. Northrup addressed the Industrial Group's concern that the 2013 IRP and his direct testimony did not have the same calculations for equivalent capacity. Mr. Northrup testified that in his direct testimony he used the methodology specified by MISO from the most recent Resource Adequacy Business Practice Manual dated September 1, 2014, to calculate the expected equivalent annual capacity. Specifically, the hourly net output in MWs for hours 1500 – 1700 EST for the months of June, July, and August were used to estimate the equivalent annual capacity value for intermittent solar capacity resources. The equivalent annual capacity value for the 20 MWs of nameplate solar contracts, using the MISO methodology, resulted in assigning approximately 14 MWs for the combined solar contracts or 70% of nameplate capacity. Future Indiana IRPs will incorporate the latest information and guidance available for capacity planning for intermittent resources, such as solar, as additional experience is gained with the operation of solar resources.

Mr. Northrup concluded his rebuttal testimony by advising that, in his opinion, the four solar PPAs being proposed in this cause of action are reasonable and necessary, represent the most cost-effective solar projects available in the marketplace, and will provide Indiana customers an economical opportunity to advance clean, emission-free solar energy.

Ms. Christine E. Smith addressed the OUCC's request that Duke Energy Indiana expand its GoGreen annual reports to address the impact of using local solar RECs on GoGreen program costs per REC (detailing commodity, administrative, and marketing costs), customer participation levels, the total number of RECs used in its GoGreen program, and an estimate of the brokerage fees avoided by not using an established REC market to buy and sell RECs. Ms. Smith testified that Duke Energy Indiana regularly reviews marketing plans and would evaluate the impacts and costs from solar RECs as part of the inventory mix and compare the results to the previous year. The current requirements for the annual filing include participation of customers and blocks by month, the total number of RECs purchased (wind and solar RECs, as applicable), the cost of RECs per MWH and the total purchase cost including any brokerage fees. An estimate of brokerage fees avoided for inter-affiliated company solar RECs could be added and estimated using the brokerage cost of open market wind RECs. Ms. Smith testified that some of the individual solar PPA pricing may be confidential and subject to appropriate protections when provided to the OUCC and the Commission. All other GoGreen costs and revenues will continue to be reported and treated as non-confidential.

Ms. Smith also addressed the OUCC's request that the Commission require Duke Energy Indiana to disclose the fact that its GoGreen program may use RECs from one or more of the four solar facilities covered by the PPAs. Ms. Smith testified that Duke Energy Indiana already actively discloses the renewable energy projects supported by its customers, as it discloses the source of REC inventory in the semi-annual customer thank you letters and the GoGreen Annual Report (which is publically available on the GoGreen website at Duke-Energy.com). This full disclosure reporting would continue for all RECs purchased on behalf of customers, including the disclosure of solar RECs as part of the renewable energy portfolio mix, if applicable.

Ms. Smith addressed the OUCC's request to the Commission to set a sunset date on any authority Duke Energy Indiana receives in this case permitting intra-company transfer of RECs, inter-affiliate transfers of RECs, or other off-market sales of RECs, specifically that the sunset date be two to three years after the solar facilities have been in operation. In her rebuttal testimony, Ms. Smith testified that Duke Energy Indiana does not believe this request is necessary since it anticipates that a small percentage of the GoGreen program (less than 10%) will be made up of solar RECs from these four projects. Ms. Smith indicated that the remaining RECs acquired by Duke Energy Indiana from these solar projects are expected to be sold on the open market or possibly transferred to Duke Energy affiliates at market prices. Because the Indiana solar market is relatively small, Ms. Smith was not certain whether solar RECs would be available within two to three years on an Indiana open market. Additionally, the Duke Energy Indiana solar RECs would be registered in a renewable energy tracking system, which would allow them to be transferred to any market participant. Ms. Smith testified that, regardless of the way the underlying RECs are procured, Duke Energy Indiana's GoGreen REC purchases support economic and environmental benefits, create jobs, and diversify the fuel mix for the grid, and

this would continue. Ms. Smith did not recommend that a limit be placed on how RECs from Duke Energy Indiana's proposed solar PPAs can be used. Regardless of whether RECs are sold on the open market, transferred to an affiliate, transferred to the GoGreen program, or utilized for other compliance purposes, Duke Energy Indiana's customers will receive the benefits of the sales, through FAC credits.

Lastly, Ms. Smith addressed the OUCC's request that a sub-docket of Duke Energy Indiana's GoGreen case be implemented to allow the Commission, the OUCC, and other interested parties to examine the fairness, accuracy, and impact of credits from off-market REC transfers under the 20-year solar PPAs approved in this Cause. Ms. Smith testified that she did not believe this was necessary as customers have been requesting Indiana-based RECs and these solar RECs are an important component of giving customers this option as part of their renewable energy. She also indicated that, as the market for solar RECs develops in Indiana, Duke Energy Indiana will continue to evaluate its participation in that market, to the benefit of its customers.

Ms. Sieferman addressed the Industrial Group's concern that Duke Energy Indiana's ratepayers are currently subject to numerous trackers and therefore Duke Energy Indiana should not be allowed to charge additional costs through tracking mechanisms. Ms. Sieferman testified that Duke Energy Indiana is not requesting approval of an additional tracker in this proceeding, only asking that reasonable and appropriate new costs associated with the renewable PPAs be included in the existing FAC tracker proceeding.

Ms. Sieferman addressed the Industrial Group's testimony that solar capacity costs should not be allowed in the FAC tracker as solar is not fuel, volatile, or necessary to serve customers and may complicate the FAC proceedings with regard to excess coal inventories. Ms. Sieferman testified that Duke Energy Indiana's FAC proceedings reflect multiple generation sources, including steam, hydro, natural gas, and wind. In addition to company-owned generation, the FAC filings also include electricity obtained through PPAs. The request in this proceeding, to include the full cost of the solar purchases associated with the four solar PPAs as a recoverable native load fuel cost within the FAC proceeding, is consistent with the Commission-approved treatment of Duke Energy Indiana's existing wind generation PPAs with the Benton County Wind Farm and Purdue Energy Park in Cause Nos. 43097 and 44444, respectively. The pricing for these four solar PPAs is fixed over the term of each contract. Each contract provides for a single \$/MWH rate to be paid based on actual energy produced. There is no associated demand charge that is payable whether the solar projects produce power or not. As such, full recovery through the FAC process is appropriate.

Ms. Sieferman addressed the Industrial Group's concern regarding the complications that could arise in regard to any excess coal inventory. Ms. Sieferman testified that these solar resources would not directly impact coal inventory levels as Duke Energy Indiana submits offers for all of its generation resources to MISO, and MISO, in turn, chooses how to commit and dispatch those resources regardless of its load. Therefore, the commitment and dispatch of Duke Energy Indiana's coal-fired units is not directly impacted by a reduction in load as a result of any behind-the-meter-generation produced by these four solar projects.

Ms. Sieferman addressed the Industrial Group's testimony that if the Commission grants solar capacity cost recovery through a tracker, the cost should be allocated to classes on a demand factor. Ms. Sieferman testified that it is consistent with past Commission practice to include long-term renewable PPA generation and costs within the FAC tracker, allocated on an energy basis, which is also the practice within Duke Energy Indiana's FAC proceedings.

Ms. Sieferman addressed the Industrial Group's testimony that the Commission had recently approved a demand allocation for I&M's solar pilot project in Cause No. 44511. Ms. Sieferman testified that the structure of I&M's proposed solar pilot project was different from what Duke Energy Indiana is proposing in this proceeding. I&M requested authorization from the Commission to construct, own, and operate the solar facilities rather than entering into long-term PPAs with third-party project developers, as is the case in this current proceeding. Ms. Sieferman further testified that the Commission has approved similar rate recovery as Duke Energy Indiana is requesting in this proceeding, including the recovery granted to the following: Northern Indiana Public Service Company in Cause Nos. 43393, 43922, and 44393; Indianapolis Power & Light Company in Cause Nos. 43485 and 43740; Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana in Cause No. 43259; and Indiana Michigan Power Company in Cause No. 43328.

Ms. Sieferman also addressed the Industrial Group's request that the Commission require Duke Energy Indiana to update its demand allocation factors as they were developed based on 2002 data that they claim is no longer reflective of current usage characteristics of certain customer classes. Ms. Sieferman testified that Duke Energy Indiana is requesting to include the costs of the four PPAs in the FAC tracker on an energy basis and since the FAC tracker allocations are based on current usage, it does not necessitate an update of the demand allocators.

Ms. Sieferman also addressed the OUCC's requests that the Commission require Duke Energy Indiana to keep adequate records and file sufficient information in the future Rider 60 adjustment filings to verify that FAC customers have received the full benefit of RECs associated with the four solar PPAs. Ms. Sieferman testified that Duke Energy Indiana is agreeable to this recommendation and commits to working with the OUCC to ensure their information needs related to these solar RECs are met.

Ms. Sieferman also addressed the OUCC's testimony that it is concerned about the fairness and accuracy of the proxy market price used to document intra-company transfers and inter-affiliate transfers of RECs. Ms. Sieferman testified that it was Duke Energy Indiana's intent to maximize the REC values by studying the current markets for solar RECs and working with the solar project developers to ensure that the requirements are met to be able to register the RECs in the markets with the most favorable pricing. The PPA language states that the project owners would be responsible for registering with, paying all fees required by, and complying with all reporting and other requirements of the Generation Information System ("GIS") relating to the facilities or RECs. Any REC sales would be conducted at the prevailing market prices that exist at the time transactions are executed. Price discovery for market prices will be gathered from broker quotes, publications that regularly report on solar REC prices, and electronic means such as Intercontinental Exchange. This same process would be used to determine market pricing regardless of whether the RECs were sold off the market to an unrelated third party or

transferred to the GoGreen program or to an affiliated company. Documentation of such pricing would be provided to the OUCC in any FAC proceeding where sales occurred.

8. Commission Discussion and Findings. The evidence in this Cause indicates the four solar PPAs will produce benefits for Duke Energy Indiana, its customers, and the State of Indiana. As discussed further below, the Commission finds the relief requested is in the public interest and should be granted.

A. Reasonableness of the PPA Terms. The record establishes that the four winning solar PPA bids were selected through a comprehensive and open RFP solicitation process. Duke Energy Indiana decided to purchase the net output of the four winning solar PPA bids under a 20-year fixed pricing structure. Under this arrangement, Duke Energy Indiana's customers will only pay for solar energy when it is actually delivered. Duke Energy Indiana will own all of the environmental credits, including RECs, associated with these four solar projects, which it has proposed to monetize to the benefit of its customers. The selected solar developers, Sullivan Solar LLC, McDonald Solar LLC, Pastime Solar LLC, and Geres Energy LP, will each retain the responsibility for construction, operation, and maintenance of these solar facilities. The solar developers will also receive and retain existing and future tax credits or tax benefits of the solar renewable energy projects. Like other solar and wind projects approved by the Commission, these four solar projects represent a reasonable addition to and diversification of Duke Energy Indiana's resource portfolio. The price construct of these renewable energy opportunities will provide an energy resource independent of fuel price volatility or increased environmental emissions restraints and costs.

The Industrial Group witness, Mr. Phillips, claims that the solar PPAs may not be economical and that their approval is premature. Further, Mr. Phillips argues that the impetus for this proceeding is Duke Energy Indiana's obligations under a settlement agreement with certain parties for the Edwardsport air permit. The reasonableness of the settlement agreement entered into regarding the Edwardsport air permit is not the subject of this proceeding and accordingly is not a determinative factor in our consideration of the relief requested by Duke Energy Indiana. However, the evidence of record demonstrates that Duke Energy Indiana's costs under the PPAs are competitive with other solar and non-solar resources. The aggregate PPA portfolio has been demonstrated to be a cost-effective option for customers. Further, we find that the inclusion of solar is not inconsistent with Duke Energy Indiana's last IRP, which included the planned addition of solar resources in this general timeframe. While the primary attribute of these PPAs is the carbon-free energy they provide, we also recognize the collateral benefit of their capacity value. Mr. Northrup's testimony demonstrated that, due to planned coal plant retirements, there is a need for capacity in the next 20 years, and these four solar projects can help to meet that need. For all the foregoing reasons, the Commission finds that the pricing and terms of the PPAs are reasonable and necessary and in the public interest. Further, we find that approval of the PPAs is consistent with the policy of the State of Indiana codified at Indiana Code § 8-1-2.4-1 to encourage the development of alternate energy production facilities.

B. Solar PPA Cost Recovery. A review of Indiana Code ch. 8-1-8.8 demonstrates, and we find, that the four solar PPAs satisfy the statutory definition of "clean energy projects" defined in Indiana Code § 8-1-8.8-2 in that the projects will develop alternative

energy sources, including renewable energy. We find the each project also qualifies as a “renewable energy resource” as defined by Indiana Code § 8-1-8.8-10. Additionally, Indiana Code § 8-1-8.8-11 provides that renewable energy projects, such as Duke Energy Indiana’s four solar energy PPAs, are eligible for incentives, including timely recovery of costs and financial incentives.

Industrial Group witness Mr. Phillips proposes that if approved for recovery, the Commission should modify Duke Energy Indiana’s proposed cost recovery allocation methodology to a demand based factor. Duke Energy Indiana explained that the costs incurred are variable costs, which are only payable to the developers when energy is produced. As such, we find that allocation on an energy basis and recovery pursuant to the FAC process is reasonable.

The Commission finds Duke Energy Indiana’s proposal to recover the costs associated with the PPAs in conjunction with its quarterly FAC filing is reasonable and administratively efficient. It is also similar to treatment previously approved by this Commission for recovery of wind power PPA cost. As such, Duke Energy Indiana shall be authorized to recover the retail jurisdictional portion of the purchased power costs under the PPAs, plus any MISO fuel-related costs over the full 20-year term of the PPAs through Duke Energy Indiana’s quarterly FAC proceedings. Additionally, any non-fuel MISO costs and credits associated with the PPAs should be recovered under Rider 68. Duke Energy Indiana should also be authorized to credit the MISO ZRC capacity revenues associated with these four solar projects through Rider 70.

C. Reporting Requirements. The rebuttal testimony of James S. Northrup explained that Duke Energy Indiana proposes to provide general annual status project reports for the proposed four solar projects identified in this proceeding, subject to appropriate protections. Said general annual status project reports will include the following: (1.) project status; (2.) annual MWH generation; (3.) annual capacity factors; and (4.) any issues that have had material impacts on the annual operation and generation of the four solar facilities. We find the proposal to submit such a report annually is reasonable and should be adopted.

OUCC witnesses were supportive of Duke Energy Indiana’s request in the proceeding, but did recommended several additional reporting requirements, such as requiring Duke Energy Indiana to file an initial report and annual updates providing details of the solar facilities, as discussed in Ms. Brown’s testimony. Some of the OUCC’s reporting recommendations will require Duke Energy Indiana to expand the annual report in Cause No. 44283 to address the impact of using RECs from these four solar projects on the GoGreen program, costs per REC, customer participation levels, the total number of RECs used in the GoGreen program, an estimate of the brokerage fees avoided by not using an established REC market to buy and sell RECs and providing documentation in FAC proceedings to demonstrate that RECs were sold at market prices.

Duke Energy Indiana agreed to these additional requirements in its rebuttal testimony, and we hereby find Duke Energy Indiana should file an initial report and subsequent annual updates providing the information requested in Ms. Brown’s testimony. The Commission further finds that Duke Energy Indiana shall include in its annual GoGreen report required in Cause No.

44283, an estimate of brokerage fees avoided for intra-company, inter-affiliate, or other off-market transfers of solar RECs, estimated using the brokerage cost of open market wind RECs until such market data becomes available for solar RECs. Finally, Duke Energy Indiana is directed to work with the OUCC to ensure the OUCC's informational needs related to these solar PPAs and associated RECs are met.

As to the one contested recommendation of the OUCC, we find that it is premature to order any formal docketed proceeding to review the REC transfers that are anticipated to occur to the GoGreen program or to Duke Energy Indiana affiliates. Duke Energy Indiana has committed to make any such transfers at market prices and the pricing can be reviewed in quarterly FAC proceedings and annual GoGreen program reports. Further, the GoGreen program as an ARP is subject to Indiana Code § 8-1-2.5-7. We find this fact and the proposed process provides the Commission adequate ongoing review of the pricing for REC sales and purchases.

D. Treatment of RECs. As explained in Ms. Smith's and Ms. Siefertman's testimony and rebuttal testimony, Duke Energy Indiana is entitled to the value of all RECs under the four PPAs. Duke Energy Indiana plans to sell these RECs on the open market, such as through M-RETS, or monetize them through intra-company transfers and inter-affiliate transfers. The net proceeds from the sales or transfers of RECs obtained through the PPAs will be used to reduce the fuel cost, effectively reducing the cost of the PPAs, to be included in the FAC calculation. In the future, if Duke Energy Indiana becomes subject to a renewable portfolio standard, these RECs can be maintained and should count toward any future applicable renewable energy portfolio requirements. Based on the evidence presented, we find Duke Energy Indiana's proposed treatment of these solar RECs is reasonable. Accordingly, the inclusion of the net retail jurisdictional portion of any proceeds from future sales or transfers of these RECs should be determined and credited back to Duke Energy Indiana's customers in future FAC proceedings.

E. Alternative Regulatory Plan. Duke Energy Indiana seeks a modification of its alternative regulatory plan pursuant to Indiana Code ch. 8-1-2.5, most recently approved in Cause No. 44283. In this proceeding, Duke Energy Indiana seeks approval to offer a new component to its GoGreen program to allow customers to purchase, for a premium, solar RECs resulting from projects located within Duke Energy Indiana's service territory, as opposed to purchasing out-of-state RECs.

Duke Energy Indiana is an "Energy Utility" under the Alternative Utility Regulatory Act ("AUR Act"), Indiana Code ch. 8-1-2.5. Under Section 6(a)(1) of the AUR Act, the Commission may adopt alternative regulatory practices, procedures, and mechanisms and establish just and reasonable rates and charges that (a) are in the public interest as determined by consideration of the factors listed in Indiana Code § 8-1-2.5-5; and (b) enhance or maintain the value of a utility's energy services or properties. ARPs authorized by the statute include practices, procedures, and mechanisms focused on the price, quality, reliability, and efficiency of the utility service. Pursuant to Indiana Code § 8-1-2.5-5(b), in determining whether the public interest will be served, the Commission must consider:

- (i.) Whether technological or operating conditions, competitive forces, or the extent of regulation by other state or federal regulatory bodies render traditional regulation unnecessary or wasteful;
- (ii.) Whether the Commission's approval of an alternative regulatory plan will be beneficial for the utility, its customers, or the state;
- (iii.) Whether the Commission's declining to exercise, in whole or in part, its jurisdiction will promote energy utility efficiency; and
- (iv.) Whether the exercise of Commission jurisdiction inhibits a utility from competing with other providers of functionally similar services or equipment.

Having reviewed all evidence of record in this Cause, the Commission finds that Duke Energy Indiana's proposed ARP modification is reasonable, so that the GoGreen program can offer in-state solar RECs associated with the four PPAs approved in this order. It is uncontroverted that GoGreen is a voluntary program in which customers may choose to participate at varying levels and that offering local-sourced solar RECs increases options for customers who choose to participate in the GoGreen program. The agreed-upon reporting requirements in the GoGreen settlement agreement approved in Cause No. 44283 and the additional reporting requirements approved in this order will allow the OUC and this Commission to remain informed of the growth and performance of this ARP and the types of RECs purchased for the GoGreen program. The Commission therefore approves the future inclusion of RECs from the four PPAs approved in this order in the GoGreen program to increase options available to Duke Energy Indiana's customers and to permit additional limited pricing flexibility not to exceed a 25% increase over the current rate, upon 60 days advance notice to affected GoGreen customers.

The price and structure of participation in the GoGreen Power Rider may be adjusted in a manner that maximizes customer satisfaction, customer participation, and the proliferation of renewable energy in Indiana. These benefits will be achieved without the cost to all stakeholders of having to periodically seek regulatory approval for minor adjustments to the GoGreen power pricing. RECs are openly traded commodities whose prices fluctuate. Accordingly, the Commission finds Duke Energy Indiana's request for the approval to offer a new component to its GoGreen program to allow customers to purchase, for a premium, solar RECs resulting from projects located within Duke Energy Indiana's service territory as part of the renewable energy portfolio mix should be approved with the requested declination of Commission jurisdiction.

9. Confidential Information. On February 19, 2015, Duke Energy Indiana filed its Motion for Protection of Confidential and Proprietary Information seeking a determination that designated Confidential Information involved in this proceeding be exempt from public disclosure under Indiana Code § 8-1-2-29 and Indiana Code ch. 5-14-3. The request was supported by the affidavits and testimony of James S. Northrup and Suzanne E. Siefertman. On March 2, 2015, the Presiding Officers made a preliminary finding that certain designated Confidential Information should be treated as confidential in accordance with Indiana Code § 5-

14-3-4. However, at the evidentiary hearing, Duke Energy Indiana modified its original confidentiality request in response to a request by the Intervenors. Duke Energy Indiana agreed that certain specified average aggregate values related to the four PPAs could be treated as public. After reviewing the remaining designated Confidential Information submitted pursuant to the Presiding Officers' preliminary determination, this Commission confirms its prior preliminary finding of confidentiality as to all remaining information that Duke Energy Indiana did not voluntarily make public at the evidentiary hearing. Therefore, the remaining Confidential Information shall continue to be exempt from the public access requirements of Indiana Code ch. 5-14-3 and Indiana Code § 8-1-2-29 and shall continue to be held as confidential until otherwise ordered by this Commission.

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

1. Duke Energy Indiana's request for approval of the four solar PPAs with Sullivan Solar LLC, McDonald Solar LLC, Pastime Solar LLC, and Geres Energy LP, are hereby approved.

2. Duke Energy Indiana is authorized to recover the retail jurisdictional portion of the purchased power costs under the four solar PPAs plus the MISO fuel-related costs over the full 20-year term of the PPAs, pursuant to Indiana Code § 8-1-2-42(a) and Indiana Code § 8-1-8.8-11, to be administered contemporaneously with and within Duke Energy Indiana's quarterly FACs or any successor mechanisms, without being subject to FAC benchmark review.

3. Duke Energy Indiana is authorized to recover under Rider 68 the non-fuel MISO costs and credits it incurs associated with the four solar PPAs.

4. Duke Energy Indiana is authorized to recover the value of the RECs under the four solar PPAs and to include a credit for the net retail jurisdictional portion of the proceeds from the sales or transfers of any such RECs in the development of its retail fuel adjustment factor.

5. Duke Energy Indiana is authorized to credit MISO ZRC capacity revenues associated with the four solar PPAs through Rider 70.

6. Duke Energy Indiana is authorized to offer a new component to its GoGreen program to allow customers to purchase solar RECs from projects located within Duke Energy Indiana's service territory as part of its renewable energy portfolio mix.

7. Duke Energy Indiana is granted approval of a modification to its GoGreen Alternative Regulatory Plan consistent with the above findings.

8. From the date of commercial operation of the proposed solar projects, Duke Energy Indiana shall annually submit to the OUCC and Commission, a general project status report for each of the four underlying solar projects, subject to appropriate protections. The annual project status reports will contain the following information: (1.) project status; (2.)

annual MWH generation; (3.) annual capacity factors; and (4.) any issues that have had material impacts on the annual operation and generation of the four underlying solar facilities.

9. Those portions of Duke Energy Indiana’s evidence submitted under seal, excluding information removed from Duke Energy Indiana’s confidentiality request during the evidentiary hearing, are found to be entitled to confidential treatment in Finding Paragraph No. 9 of this Order and shall be exempt from disclosure under Indiana Code § 8-1-2-29 and Indiana Code ch. 5-14-3 until otherwise ordered by the Commission.

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

STEPHAN, MAYS-MEDLEY, HUSTON, WEBER, AND ZIEGNER CONCUR:

APPROVED: AUG 19 2015

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



**Brenda A. Howe
Secretary to the Commission**