

ORIGINAL



STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF DUKE ENERGY)
INDIANA, LLC FOR ISSUANCE OF A)
CERTIFICATE OF PUBLIC CONVENIENCE AND)
NECESSITY UNDER INDIANA CODE 8-1-8.5 FOR)
THE CONSTRUCTION OF A SOLAR-POWERED)
GENERATING FACILITY TO BE LOCATED AT)
NSA CRANE (“CRANE SOLAR FACILITY”);)
APPROVAL OF THE CRANE SOLAR FACILITY)
AS A CLEAN ENERGY PROJECT UNDER)
INDIANA CODE 8-1-8.8; AUTHORIZATION FOR)
TIMELY RECOVERY OF THE ASSOCIATED)
CONSTRUCTION AND OPERATING EXPENSES)
THROUGH PETITIONER’S EXISTING)
STANDARD CONTRACT RIDER NOS. 62 AND 71;)
APPROVAL TO DEFER COSTS ASSOCIATED)
WITH THE CRANE SOLAR FACILITY UNTIL)
SUCH COSTS ARE REFLECTED IN DUKE)
ENERGY INDIANA, LLC’S RATES AND)
CHARGES; AND APPROVAL OF A NEW)
DEPRECIATION RATE SPECIFIC TO THE)
PROPOSED CRANE SOLAR FACILITY)

CAUSE NO. 44734

APPROVED:

JUL 06 2016

ORDER OF THE COMMISSION

Presiding Officers:
David E. Ziegner, Commissioner
Aaron A. Schmoll, Senior Administrative Law Judge

On January 7, 2016, Petitioner Duke Energy Indiana, LLC (“Duke Energy Indiana” or “Petitioner”) filed its Petition with the Indiana Utility Regulatory Commission (“Commission”) initiating this Cause.

On January 14, 2016, Petitioner filed its Direct Testimony and Exhibits. On March 2, 2016, Citizens Action Coalition of Indiana, Inc. (“CAC”) filed its Petition to Intervene in this proceeding, which was subsequently granted.

On April 15, 2016, Duke Energy Indiana and the Indiana Office of Utility Consumer Counselor (“OUCC”) (collectively the “Settling Parties”) filed their Joint Stipulation and Settlement Agreement (“Settlement Agreement”). On April 25, 2016, Petitioner and the OUCC filed their respective testimony in support of the Settlement Agreement.

On May 10, 2016, the Commission conducted a public evidentiary hearing in this Cause 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 evidence, which was admitted into the record without objection. No members of the public appeared.

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

1. Notice and Commission Jurisdiction. Due, legal, and timely notice of the hearing in this Cause was given and published as required by law. Petitioner is a public utility within the meaning of that term as used in Ind. Code §§ 8-1-2-1 and 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. Petitioner requests relief pursuant to Ind. Code chapters 8-1-8.5 and 8-1-8.8, and also Ind. Code § 8-1-2-42(a). Therefore, the Commission has jurisdiction over Petitioner and the subject matter of this Cause.

2. Petitioner's Characteristics. Duke Energy Indiana is a public utility limited liability company ("LLC") organized and existing under the laws of the State of Indiana with its principal office in Plainfield, Indiana, and 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 810,000 customers located in 69 counties in the central, north central and southern parts 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 Petitioner.

3. Relief Requested. In its Petition, Petitioner requested: (1) issuance of a Certificate of Public Convenience and Necessity ("CPCN") under Ind. Code 8-1-8.5 for the proposed Crane Solar Facility; (2) approval of the Crane Solar Facility as a "clean energy project" under Ind. Code 8-1-8.8; (3) authorization to establish a new renewable energy project rider for utility-owned renewable energy facilities; (4) authorization to timely recover the Crane Solar Facility's construction and operating costs through Petitioner's newly requested renewable energy project rider; (5) approval to defer costs associated with the Crane Solar Facility until such costs are reflected in Petitioner's rates and charges; and (6) approval of a new depreciation rate specific to the proposed Crane Solar Facility.

4. Petitioner's Case-in-Chief. Duke Energy Indiana presented the testimony of four (4) witnesses in its case-in-chief: Ms. Melody Birmingham-Byrd, President,; Mr. Vann K. Stephenson, General Manager of Major Projects; Mr. Scott Park, Director IRP & Analytics – Midwest; and Ms. Suzanne E. Sieferman, Manager Rates and Regulatory Strategy.

Ms. Birmingham-Byrd explained that Petitioner is seeking approval of its proposal to construct the Crane Solar Facility on land leased to Duke Energy Indiana by the Naval Support Activity Crane ("NSA Crane") base. Petitioner is also seeking a CPCN for the Crane Solar Facility under Ind. Code 8-1-8.5 and requests that the Commission approve its proposed

accounting and rate treatment related to constructing, owning, and operating the Crane Solar Facility.

Ms. Birmingham-Byrd testified that the proposed Crane Solar Facility will be approximately 17 MW_{ac}/24 MW_{dc} and will be located on land leased to Duke Energy Indiana from NSA Crane. The Crane Solar Facility will interconnect to Duke Energy Indiana's 69 kV transmission line located nearby and will be bid into the Midcontinent Independent System Operator ("MISO") in the same way as other Duke Energy Indiana owned generation.

Ms. Birmingham-Byrd testified that NSA Crane, one of Duke Energy Indiana's largest customers, approached Petitioner to discuss the Department of Navy's goals regarding renewable energy and energy security, which were compatible with Duke Energy Indiana's goals for fuel diversity and the desire to add utility-owned solar to its resource portfolio. The parties then agreed to cooperate on developing long-term cost-effective renewable energy generation to help Duke Energy Indiana meet state, national, or climate action goals and to help the Department of the Navy improve energy security, operational capability, strategic flexibility and resource availability. The Crane Solar Facility was the outcome of those collaborative efforts.

Ms. Birmingham-Byrd further testified that there were two ways that the proposed Crane Solar Facility would help further the Navy's energy security goals. First, in lieu of cash payments for the fair market value of the site lease, Duke Energy Indiana agreed to install a remote operable switch on the 69 kV line that serves NSA Crane and to study the feasibility of incorporating future grid-tied energy storage technologies for the purpose of maintaining electric services for critical loads, benefiting NSA Crane and other customers throughout the region during an outage. Secondly, under certain circumstances, such as a significant regional outage, NSA Crane could purchase the solar power at the Crane Solar Facility to the extent it has the technical ability to do so.

Ms. Birmingham-Byrd also testified that Duke Energy Indiana's agreement to perform a feasibility study could possibly mean an additional investment at or near NSA Crane, as the feasibility study, led by Duke Energy Indiana, will provide an assessment of energy security options for NSA Crane, including possible integration of new and existing distributed energy resources, control and communications equipment, and other distribution equipment. Ms. Birmingham-Byrd further testified that while Duke Energy Indiana may evaluate future, grid-tied electrical infrastructure investments at NSA Crane, including energy storage, the Petitioner has not yet committed to any additional investment outside of the proposed Crane Solar Facility.

Ms. Birmingham-Byrd also testified that the Crane Solar Project would help further Duke Energy Indiana's goals for fuel diversity and the desire to add utility-owned solar to its resource portfolio. Duke Energy Indiana is interested in diversifying its portfolio and the Crane Solar Project is an important step in that direction. Furthermore, this project would provide Petitioner with the opportunity to develop the expertise needed to meet future resource needs and gain expertise in solar.

Ms. Birmingham-Byrd explained Petitioner's Exhibits 1-A and 1-B. Petitioner's Exhibit 1-A was a copy of the letter sent by the Department of the Navy expressing its support for the

Crane Solar Facility and Petitioner's Exhibit 1-B was a copy of the Verified Petition filed in this proceeding on January 7, 2016.

Ms. Birmingham-Byrd testified that Duke Energy Indiana would own the renewable energy credits ("RECs") associated with the Crane Solar Facility and would likely seek to sell the RECs until such time as they are needed for a regulatory requirement. She proposed that any net proceeds associated with the sale of those RECs be credited to customers through Petitioner's Fuel Adjustment Charge ("FAC") Rider.

Ms. Birmingham-Byrd explained Petitioner's current resource portfolio consisted of coal, natural gas, hydroelectric power, and purchase power agreements ("PPAs") for wind and solar. Additionally, customers can choose to participate in energy efficiency ("EE") programs, demand response offerings, and purchase RECs to meet some of their electric needs. Ms. Birmingham-Byrd also explained that it is very important to have a diverse portfolio of generation resources to be able to respond to customer demand and to provide customers with cost-effective resources that help to insulate against risks in the marketplace. Ms. Birmingham-Byrd further explained how the Crane Solar Project fits into Petitioner's resource mix. She testified that, as the President of Duke Energy Indiana, she knows customers are interested in a diverse portfolio of options to serve their energy needs. Furthermore, as part of Petitioner's Integrated Resource Plan ("IRP") process, as well as in other forums, Petitioner receives regular feedback from its customers that they are interested in expanding the renewable generation options available to them. She opined that recent advancements in solar energy make it an attractive option to add to Petitioner's resource portfolio. Furthermore, with the Clean Power Plan, Petitioner needs to explore a greenhouse gas emission strategy that includes renewable resources, such as solar energy. Currently, Duke Energy Indiana does not have a utility-owned solar project in its portfolio. The Crane Solar Facility provides an opportunity for Duke Energy Indiana to construct, own, and operate a solar facility and develop operational expertise to help Petitioner prepare for a greenhouse gas constrained future, while simultaneously benefiting its customers.

Ms. Birmingham-Byrd testified that there were other considerations that led Petitioner to propose the Crane Solar Facility. Customers are interested in increasing generation from renewable energy sources, while keeping their rates low. To that end, a Duke Energy Indiana renewable energy generation investment on NSA Crane land represents a modest investment in renewable energy at a level that attempts to balance those interests. The State of Indiana and Duke Energy Indiana's customers will benefit from having 17 MW of solar energy generation, while the impact on customer rates is kept to a minimum, due to the relatively small size of the investment. Additionally, Petitioner's customers benefit from the federal investment tax credit ("ITC"), which allows utilities to claim a 30% credit for investing in certain renewable technologies, such as solar power.

Ms. Birmingham-Byrd testified that the Crane Solar Facility is a "Clean Energy Project" under Ind. Code § 8-1-8.8-2 as the definition includes "projects to develop alternative energy sources, including renewable energy projects." In addition, "solar energy" is specifically listed as one of the clean energy resources in Ind. Code § 8-1-37-4(a)(1) through Ind. Code § 8-1-37-4(a)(16), thus making it a "renewable energy resource" under Ind. Code § 8-1-8.8-10. The development of a "...robust and diverse portfolio of energy production or generating capacity,

including...the use of renewable energy resources is needed if Indiana is to continue to be successful in attracting new businesses and jobs.” Ind. Code § 8-1-8.8-1(a)(2).

Ms. Birmingham-Byrd further testified that, in her opinion, the proposed Crane Solar Project is reasonable and necessary and in the public interest. Petitioner believes that investing in solar energy resources is reasonable and appropriate at this time, and will benefit Indiana and Petitioner’s customers. The Crane Solar Facility will serve to diversify Petitioner’s generation portfolio, provide additional solar generation in Indiana, encourage economic development, and meet Petitioner’s customers’ increasing desire to have renewable energy options available to serve their needs.

Ms. Birmingham-Byrd further explained that Petitioner was seeking expedited review of this proceeding. At the time the Department of the Navy approached Petitioner about the Crane Solar Facility, both parties agreed that it was important to have the project in-service by December 31, 2016, in order to take advantage of the 30% ITC, which was scheduled to expire on January 1, 2017. This date has now been extended to December 31, 2019. Although the ITC is no longer driving Petitioner’s request for expedited consideration, its contracts contain dates for vendor and contractor action that support a December 31, 2016 in-service date. Specifically, Petitioner’s engineering, procurement and construction (“EPC”) contractor needs to begin construction no later than June of 2016, in order to support a 2016 project delivery. As Indiana law requires a CPCN prior to beginning construction, Petitioner hopes to facilitate prompt regulatory review in order to prevent contractor and vendor delays and potential increased costs.

Mr. Stephenson testified that Petitioner intends to construct the proposed Crane Solar Facility through a fixed price, firm schedule EPC contract for the construction and installation of the solar array. The transmission interconnection work would be performed under firm price contracts overseen by both the Petitioner’s transmission organization and project management and construction organization. Petitioner’s project management and construction organization would manage all aspects of the construction of the Crane Solar Facility, in conjunction with Petitioner’s transmission organization, which will also be overseeing certain aspects of the Crane Solar Facility’s interconnection with the transmission grid.

Mr. Stephenson further testified that Petitioner has submitted the proposed Crane Solar Facility to the MISO interconnection queue and anticipates learning more about any transmission impacts of the proposed interconnection from the MISO System Impact Study. Petitioner expects an Interconnection Agreement sometime in or around April, 2016. Furthermore, after receiving the MISO feasibility study, Petitioner assumes limited transmission investment will be necessary in order to interconnect the Crane Solar Facility and has included those potential expenses in its cost estimate in this proceeding. Any additional scope impacts produced by the MISO study process would be evaluated to determine the impact to both cost and the planned commercial operation date of the facility.

Mr. Stephenson testified that Petitioner’s Confidential Exhibit 2-A was Petitioner’s cost estimate for the Crane Solar Facility. The overall estimate is approximately \$41.3 million, which includes a reasonable contingency amount of approximately \$1.6 million. This amount does not include an estimate of the Allowance for Funds Used During Construction (“AFUDC”), instead,

Petitioner requests approval of its estimated project costs, plus the actual, accrued amount of AFUDC.

Mr. Stephenson testified that there are four main components to the cost estimate for the Crane Solar Facility: (1) panels and inverters; (2) construction and racking of solar panels; (3) transmission interconnection and construction of a substation; and (4) remote monitoring and site communications infrastructure. Mr. Stephenson explained that by design, solar panels are a direct current (“DC”) source with multiple panels interconnected to deliver a percentage of rated power at 1000V-DC. Multiple DC inputs are combined and connected to an inverter, which yields an alternating current (“AC”) at what is considered distribution voltage, *i.e.* 13 kV. The output from multiple inverters is then combined at the solar facility’s substation to deliver 100% of the rated power of the facility to be stepped up to transmission voltage, in this case 69 kV, and delivered onto Petitioner’s system. For the second component, Mr. Stephenson explained that Petitioner had entered into an EPC contract to construct and rack the solar panels. The EPC contractor will also be responsible for site preparation and installation of racking and panels and will also provide and install the DC and AC cabling required to interconnect the solar modules into an array that will yield two 13KV distribution circuits that will be brought to a substation for transformation and interconnection with Petitioner’s transmission system. For the third component, Mr. Stephenson explained that Petitioner did not expect to hear from MISO on the Crane interconnection until April 2016; however, they included costs associated with both the transmission interconnection and construction of a Crane Solar Facility-related substation as it is assumed that such upgrades will ultimately be required by MISO to support the addition of this generation to the transmission grid. Petitioner reasonably expects limited system impacts associated with the project’s interconnection. However, to the extent there are additional schedule or cost impacts associated with the transmission system upgrades, those will have to be evaluated to determine the impact to the commercial operation date and cost estimate of the facility. For the fourth and final component, Petitioner has included costs for communications infrastructure and remote monitoring of the Crane Solar Facility to ensure real time data and grid optimization are both available. This facility will also be able to be isolated and interrupted to both protect the Crane Solar Facility from grid faults and the transmission grid from any faults associated with the Crane Solar Facility. This level of monitoring and system control allows Petitioner to optimize this facility to the grid and ensure it is producing energy optimally as required by MISO. In addition to these four major components, Petitioner has also included in its estimate a reasonable amount for contingency and risk, as well as labor and indirect costs. Furthermore, given that nearly 80% of the capital costs for the Crane Solar Facility are based on fixed price contracts, Petitioner is confident that its estimate is reasonable and accurate.

Mr. Stephenson explained how Petitioner selected its contractors for the Crane Solar Project. Its suppliers were selected through competitive bidding processes and comply with the Buy American Act, as required under the terms of the Lease Agreement with NSA Crane. As to Petitioner’s EPC contractor, it was selected through a competitive request for proposal and also must be compliant with the Buy American Act requirement. After evaluating all bids, Petitioner selected its EPC contractor based on its overall solar experience, Midwest regional labor familiarity, federal government contracting experience and competitive pricing. The EPC contract is a fixed price and firm schedule contract with a target commercial date of December 2016. The panels, inverters and EPC contract together, comprise approximately 80% of the

capital costs for the Crane Solar Facility. There are portions of the project for which contracts are not already in place, mainly the transmission and communication infrastructure portions. Petitioner's contracting strategy for those remaining portions is to enter into firm price contracts for engineering and construction in the first quarter of 2016, with Petitioner's transmission organization providing the generation step up transformer.

Mr. Stephenson testified that the transmission investment costs included in the Crane Solar Project estimate included costs associated with the interconnection of the Crane Solar Facility to Duke Energy Indiana's existing 69 kV transmission line, as well as costs associated with necessary relay upgrades. Furthermore, Petitioner has received a MISO feasibility study, which is the first part of the process of submitting a complete application for generator interconnection to MISO and has considered possible transmission investment that could be required for interconnecting a new generating facility to the grid. Petitioner does not anticipate investment beyond what's included in this current estimate; however, it will not know for sure until it receives the Interconnection Agreement and System Impact Study in April 2016. Should the MISO Interconnection Agreement and System Impact Study result in additional project costs or impacts, Petitioner would file information regarding these costs and/or schedule impacts in this proceeding.

Mr. Stephenson explained how Petitioner determined the amount of contingency to include in the project estimate as his organization is the group which identifies and quantifies project risks. Risk items are identified and quantified based on the project location, contracting strategy, technology and other project items. A project risk register is then produced to tabulate and calculate the appropriate contingency required based on both the total project cost and schedule. Mr. Stephenson's team will be responsible for managing this risk register.

Mr. Stephenson further testified that he believes this cost estimate is reasonable as over 80% of the project estimate is based on fixed price contracts, and includes Duke Energy Indiana's labor and indirect costs and a reasonable level of contingency. Furthermore, since the contractors are experienced in their respective fields, Mr. Stephenson does not believe the Crane Solar Facility will experience unusual issues or delay.

Mr. Stephenson testified as to the estimated life of the Crane Solar Facility. Mr. Stephenson stated that although the solar panels have a 10-year limited warranty and a 25-year limited performance guarantee, Petitioner anticipates that the Crane Solar Facility will have a useful life of approximately 30 years. Petitioner's lease with NSA Crane has a 30-year term, which will allow for a period of construction, 25-30 years of operation, and future dismantlement activities. This information was provided to Ms. Sieferman for use in her rate calculations and depreciation estimates. Mr. Stephenson further testified that Petitioner would own, operate and maintain the Crane Solar Facility.

Mr. Stephenson testified that in regard to operating and maintenance ("O&M") expenses once the Crane Solar Facility is in-service, there will be required maintenance activities that include remote performance monitoring, resolving any outage or system performance concerns, replacement of panels as needed due to breakage or performance loss, routine maintenance of the inverters and power transformers, repair of electrical connections, and routine vegetation

management, including mowing and vegetation control. These activities will be managed out of Duke Energy Indiana's Wheatland Generating Station and a solar technician will service the facility according to an established maintenance plan. Again, the estimated O&M was provided to Ms. Siefertman for use in her rate calculations.

Mr. Stephenson provided the Commission with a construction milestone schedule, Petitioner's Exhibit 2-B, for the Crane Solar Project. The schedule outlines that Petitioner anticipates providing its EPC contractor with full notice to proceed in early May 2016 with site mobilization occurring in mid-June 2016. Even with the recently extended federal ITC, Petitioner's construction schedule supports an anticipated December 31, 2016 in-service date. Mr. Stephenson further testified that Petitioner will keep the Commission informed of the construction status of the Crane Solar Facility pursuant to Indiana's CPCN law and proposes updating the Commission and other interested parties on construction of the proposed Crane Solar Facility as it proceeds through Duke Energy Indiana's existing semi-annual ECR proceedings (docketed as Cause Nos. 42060 ECR-XX).

Mr. Park testified as to Petitioner's 2015 IRP analyses and how the proposed NSA Crane Solar Facility is consistent with Petitioner's preferred resource portfolio from the 2015 IRP.

Mr. Park testified as to what an IRP is, explaining that it is a formal plan for meeting future utility load requirements that include the utility's assessment of a variety of demand-side and supply-side resources to reliably and cost-effectively meet customer electricity needs. In Indiana, electric generating utilities are required to submit such formal plans bi-annually. The goal of the IRP process is to determine an optimal combination of resources that can be used to reliably and cost-effectively meet customers' future electric requirements. The IRP process involves taking a myriad of resource options, and through screening and analysis, methodically funneling down until an optimal combination of feasible and economic alternatives that will reliably meet the anticipated future customer load is reached. Petitioner's most current IRP, the 2015 IRP, was submitted on November 2, 2015. Mr. Park provided as Petitioner's Exhibits 3-A and 3-B, Volumes 1 and 2 of Petitioner's Public version of its 2015 IRP.

Mr. Park testified that Petitioner's 2015 IRP included the addition of 20 MW of solar-powered generation in 2016. At the time the IRP was submitted, the proposed project had not been finalized with NSA Crane; therefore, it was not specifically named. Although the IRP did not name the Crane Solar Facility specifically, it reflected that Petitioner's preferred resource portfolio included a solar addition of this general size. Petitioner specifically stated:

In addition, Duke Energy Indiana is exploring potential additions of renewable energy sources, possibly located on customer sites or in areas in need of grid support. The renewable energy sources could be paired with energy storage, be part of a micro-grid, or be standalone. Petitioner believes that making investments in smaller, carbon-free energy sources in the near term makes sense, particularly given the increasing number of environmental regulations and related uncertainty. To the extent we are facing a carbon-constrained future, such investments will serve to support the state's carbon reduction goal, while also providing Duke

Energy Indiana with valuable experience in managing and integrating renewables, storage and micro-grids with its generation portfolio.

Mr. Park testified that the Crane Solar Facility is consistent with Petitioner's 2015 IRP and would have an anticipated net capacity factor of 22.24%.

Mr. Park testified that Petitioner would determine the appropriate capacity contribution that will be provided by the Crane Solar Facility and would use that capacity to cover its load and reserve margin needs, and if it has additional capacity, it would offer it into the MISO capacity market. MISO determines the capacity value of renewable generation, such as solar, on an annual basis using an average of historical metered output during hours 15-17 in the months of June-August. Initially, as Petitioner does not yet have historical data, it plans to count 50% of nameplate capacity (8.5 MW) as peak load capacity in Year 1 for the Crane Solar Facility in accordance with current MISO guidance. Based on solar profile modeling, Petitioner anticipates that the MISO calculated peak load capacity for successive years will be approximately 10.8 MW.

Mr. Park testified that there are considerations required by the CPCN statute, Ind. Code § 8-1-8.5-4(2), prior to the Commission granting a CPCN. The statute requires consideration of conservation, load management, renewable energy, cogeneration, refurbishment, purchased power, interchange power, power pooling, and joint ownership. Mr. Park addressed each of these specifically. Mr. Park testified that Petitioner considered conservation and load management in the analyses performed for this proceeding. As part of the IRP and ongoing projections of capacity needs, Petitioner analyzes the impacts associated with new EE or Demand Response ("DR") programs and any changes in existing EE or DR programs. The portfolio of existing and proposed EE and DR programs is evaluated to examine the impact on the generation plan if the current set of programs were to continue and proposed programs were added. The projected incremental load impacts of all programs are then incorporated into the generation portfolio optimization process.

Mr. Park also testified that Petitioner considered renewable energy resources in its analyses performed for this proceeding. In addition to the Crane Solar Facility investment itself, Petitioner's modeling allowed for the selection of a range of renewable alternatives including wind, solar, and biomass. The optimization model was allowed to select additional levels of renewable generation above any minimum requirement when it was economical.

Mr. Park also testified that Petitioner considered cogeneration in the analyses performed for this proceeding. Cogeneration has been an option for customers since 1978. A customer's decision to install cogeneration is based on the economics of comparing (i) the cost of the cogeneration facilities plus the ongoing operating costs, including whatever fuel is used in the facility, against (ii) the cost savings for whatever energy source currently is used in the generation process and any revenue that can be generated from the sale of surplus power. Petitioner's 2015 IRP included a standardized cogeneration plant as a resource option for selection by System Optimizer during the portfolio development model runs. The operating characteristics of this resource option were specified using representative data from potential cogeneration projects studied by Duke Energy Indiana.

Mr. Park also testified that Petitioner considered refurbishment of existing facilities. As described and accepted by this Commission in Cause Nos. 37414, 38809 37417-S2, 39175, 39312, and 41924, Petitioner has had a refurbishment or Engineering Condition Assessment Program (“ECAP”) for a number of years. With this program, Petitioner intends to maintain its generation units, where economically feasible, at their current level of capacity and reliability. Petitioner has performed its ECAP assessment on a number of units and has taken steps necessary to preserve the existing capacity. Petitioner has incorporated much of what was learned about its units into its ongoing maintenance program.

Mr. Park also testified that Petitioner considered the purchase of market capacity in its analyses. Petitioner assumed the use of short-term capacity purchases to meet the MISO resource adequacy requirements until new generation could be built. The rationale for this assumption is that, in the long run, the cost of purchased capacity will approach the cost of new capacity.

Mr. Park testified that interchange power is not a viable substitute for the Crane Solar Facility as hourly spot purchases are not a good substitute for, and cannot be depended upon to take the place of, firm capacity such as on-system generating resources and reliability purchases. Additionally, MISO does not allow such purchases to be applied toward a company’s MISO resource adequacy requirements. Mr. Park also testified that power pooling is not a viable alternative to the Crane Solar Facility as the current MISO market is very effective at utilizing the existing capacity resources in a region.

In regard to joint ownership for this project, Mr. Park testified that joint ownership of the Crane Solar Facility was not considered given (i) Petitioner’s customer, NSA Crane, offered its land for use specifically to Duke Energy Indiana, and (ii) the size of the project and its interconnection with Petitioner’s transmission system. In addition, growing Petitioner’s percentage of capacity of energy provided by renewable resources will be instrumental in any compliance strategy for the EPA’s Clean Power Plan or other future regulatory restriction on CO₂ emissions. Further, because all capacity is needed to serve Petitioner’s customer needs, joint ownership of the Crane Solar Facility is not a good option.

Mr. Park testified that the proposed Crane Solar Facility was consistent with the State Utility Forecast Group’s (“SUFG”) most recent forecast, which forecasts “electricity usage to grow at a rate of 1.17 percent per year over the 20 years of the forecast” and that “peak electricity demand is projected to grow at an average rate of 1.13 percent annually.” Per the SUFG, this “corresponds to about 235 MW of increased peak demand per year.” Although the SUFG does not advocate for specific types of resource additions, the Crane Solar Facility addition is consistent with its projected growth in electricity demand.

Mr. Park concluded his testimony by stating it is his belief that incurring the costs of the Crane Solar Facility is a reasonable option for serving the capacity and energy needs of Petitioner’s customers, as it is a reasonable and prudent investment and gives Petitioner the opportunity to learn and gain experience with the integration of both solar energy and potentially

microgrids on its system. It will also provide a step towards additional diversification of Petitioner's generation mix, as well as a small shift of its portfolio to greener options.

Ms. Sieferman summarized the ratemaking and accounting treatment Petitioner requested in this proceeding. Ms. Sieferman testified that Petitioner is requesting authority to recover the retail jurisdictional portion of the actual costs of constructing, owning, and operating the Crane Solar Facility through Standard Contract Rider No. 62 – Qualified Pollution Control Property Revenue Adjustment (“Rider 62”) and Standard Contract Rider No. 71 – Clean Coal Operating Cost Revenue Adjustments (“Rider 71”). Furthermore, Petitioner is requesting that the Commission approve the Crane Solar Facility as a “clean energy project” under Ind. Code 8-1-8.8. Previously, the Commission approved the use of Petitioner's Riders 62 and 71 to recover the retail jurisdictional portion of the costs for certain environmental compliance projects, most of which were approved by the Commission as “clean energy projects” under Ind. Code 8-1-8.8. Petitioner is also requesting authority to accrue a regulatory asset for post-in-service carrying costs at rates equal to Petitioner's AFUDC rates on the retail jurisdictional portion of the capital project expenditures for the solar project once it is placed in service until the costs are included in retail rates.

Ms. Sieferman explained Petitioner's current Rider 62 provides for construction work in progress (“CWIP”) ratemaking treatment for investments in qualified pollution control property (“QPCP”) and clean energy projects. Petitioner's Rider 62 was most recently approved by the Commission on July 29, 2015, in Cause No. 42061 ECR 25. Ms. Sieferman further explained that CWIP ratemaking treatment allows a utility to recover financing costs attributable to qualifying plant investments that are not included in the utility's “used and useful” rate base established in a prior general rate proceeding. Under CWIP ratemaking, financing costs are recovered as incurred and/or paid out, and the utility is able to avoid the negative effects of regulatory lag, including negative cash flows and earnings erosion. Ind. Code 8-1-8.8 specifically provides for the “timely recovery of costs and expenses incurred during construction and operation of...renewable energy projects,” such as the Crane Solar Facility.

Ms. Sieferman further testified that upon Commission approval of the Crane Solar Facility as a “clean energy project” eligible for financial incentives, Petitioner proposed to commence CWIP ratemaking treatment for the project via Rider 62 and would continue this ratemaking treatment until the Commission determines this project is used and useful in a proceeding that involves the establishment of Petitioner's base retail electric rates and charges. The environmental projects currently in Rider 62 will continue in Rider 62 until the environmental compliance investments are moved into rate base in a retail base rate case proceeding. Furthermore, she opined that because a majority of the environmental compliance investments in Rider 62 and the proposed Crane Solar Facility are clean energy projects, it would be administratively convenient for the Commission to view all such projects in one regulatory proceeding rather than separate proceedings.

Ms. Sieferman also explained that Petitioner's accounting procedures relating to CWIP ratemaking treatment are designed to ensure that AFUDC is discontinued, as appropriate, when expenditures begin recovering their financing costs through Rider 62. Projects will be deemed to be under construction and Petitioner will continue to collect revenues under Rider 62 until the

Commission determines that such projects are used and useful in a proceeding that involves the establishment of Petitioner's base retail electric rates and charges.

Ms. Sieferman also explained AFUDC as reflecting the cost of borrowed or invested funds (debt and equity) used to finance a utility plant during the construction phase of a project. These costs are recorded and capitalized as part of the total cost of the project. The Federal Energy Regulatory Commission ("FERC") Uniform System of Accounts, adopted by the Commission, includes accounting guidance, instructions, and specific formulas for calculating, determining, and applying the AFUDC rate. Ms. Sieferman further testified that on August 12, 1996, FERC granted permission to Petitioner to determine its AFUDC rate on a monthly basis, rather than on an annual basis, as specified in the Uniform System of Accounts instructions.

Ms. Sieferman also testified that Petitioner was proposing accrual as a regulatory asset of post-in-service carrying costs on the retail jurisdictional portion of the Crane Solar Facility's capital expenditures at the Petitioner's AFUDC rates once the project is placed in service, including accrual on previously computed AFUDC or post-in-service carrying cost amounts, until such expenditures and post-in-service carrying costs are recovered in Petitioner's retail rates. Ms. Sieferman further testified that the accounting treatment proposed by Petitioner for post-in-service carrying costs is in accordance with the Generally Accepted Accounting Principles ("GAAP") and that GAAP specifically discusses the accounting for a regulator's actions designed to protect a utility from the effects of regulatory lag through Topic 980 of the Financial Accounting Standards Board's Accounting Standards Codification ("ASC"). Costs associated with regulatory lag can be capitalized for accounting purposes, provided the provisions of ASC 980-340-25-1 are met. The guidance states:

Rate actions of a regulator can provide reasonable assurance of the existence of an asset. An entity shall capitalize all or part of an incurred cost that would otherwise be charged to expense if both of the following criteria are met: (a) It is probable (as defined in Topic 450) that future revenue in an amount at least equal to the capitalized cost will result from inclusion of that cost in allowable costs for ratemaking purposes and (b) Based on available evidence, the future revenue will be provided to permit recovery of the previously incurred cost rather than to provide for expected levels of similar future costs. If the revenue will be provided through an automatic rate-adjustment clause, this criterion requires that the regulator's intent clearly be to permit recovery of the previously incurred cost. A cost that does not meet these asset recognition criteria at the date the cost is incurred shall be recognized as a regulatory asset when it does meet those criteria at a later date.

Ms. Sieferman further testified that in her opinion, deferral as a regulatory asset of the jurisdictional portion of the post-in-service carrying costs on the capital costs of the Crane Solar Facility until it can be included in rates is appropriate from a ratemaking perspective, and such treatment will minimize the timing differences between cost recognition on Petitioner's books and cost recovery. Additionally, Ind. Code 8-1-8.8 specifically provides for the recovery of the costs associated with the construction and operation of a project approved by the Commission as a "clean energy project", which includes any post-in-service carrying costs as those are costs

associated with operating a clean energy project. In order to defer the post-in-service carrying costs as a regulatory asset, it must be probable that such costs will be recovered through rates in future periods. Therefore the Commission's Order in this proceeding should specifically approve the accounting and ratemaking treatment proposed by Petitioner.

Ms. Sieferman explained Petitioner's current Rider 71. Rider 71 provides for the recovery of depreciation and O&M expenses incurred on clean energy projects, such as the Crane Solar Facility. Ind. Code 8-1-8.8 allows utilities to recover costs associated with constructing and operating clean energy projects on a timely basis and provides for financial incentives. As a "renewable energy resource" specifically listed under Ind. Code § 8-1-37-4(a)(2), the proposed Crane Solar Facility fits the definition of a "clean energy project" as defined in Ind. Code § 8-1-8.8-2(2). Rider 71 is updated on a semi-annual basis using estimated costs, which are subsequently reconciled to actual costs and any difference is collected from or credited to customers as appropriate.

Ms. Sieferman testified that Petitioner was requesting approval to include the retail jurisdictional portion of operating expenses, including depreciation, O&M, payroll taxes, property taxes and property insurance associated with the Crane Solar Facility in Rider 71. Petitioner currently anticipates that the operating expenses associated with the Crane Solar Facility will include labor and expenses for maintenance activities on the panels and inverters, remote monitoring of the facility's output and performance, and vegetation management, among other activities. Ms. Sieferman further testified that Petitioner was also requesting the Commission approve the deferral of operating expenses associated with the Crane Solar Facility on an interim basis until such costs are recovered in Rider 71. This treatment allows Petitioner to match revenue with the associated expenses that the revenues are intended to recover.

Ms. Sieferman testified that Petitioner proposed recovering the costs associated with conducting a feasibility study and the installation of a remote operable switch, both of which Petitioner is providing in exchange for leasing the land for the proposed Crane Solar Facility, by including those costs as they are incurred in Rider 71. Ms. Sieferman also explained that the costs currently included in Rider 71 will still be included for recovery in Rider 71, until those amounts are moved to base rates in a retail base rate case. The revenue requirement amounts in both Rider Nos. 62 and 71 are allocated to customers using the same demand allocation method adopted for production plant-related costs in Duke Energy Indiana's last base rate case.

Ms. Sieferman also explained how Petitioner intended to pass the value of RECs received for the Crane Solar Facility back to customers. She explained that Petitioner would be receiving RECs based on the net output of the Crane Solar Facility, and as opportunities arise, Petitioner intended to monetize those RECs through open market sales. Specifically, Petitioner proposed to include the net proceeds resulting from monetization of any Crane Solar RECs within Petitioner's FAC filings. Any net proceeds from the REC sales would be shown on a separate line in Petitioner's quarterly FAC filings as a credit, reducing the total fuel cost to be included. In the future, if Petitioner becomes subject to a renewable portfolio standard or other regulatory requirement, the RECs may be maintained and counted toward Petitioner's requirements. Ms. Sieferman also explained two (2) primary reasons why Petitioner was proposing to include any net proceeds from the sale of RECs from the Crane Solar Facility in the FAC filing. First,

Petitioner would be receiving the RECs as energy is generated, thus it is appropriate to allocate the benefits of any net REC proceeds to customers based on an energy allocator. Secondly, this approach is consistent with how all Petitioner's RECs (regardless of source) are treated for ratemaking purposes. Administratively, consistency is beneficial to Petitioner's departments responsible for accounting for and monetizing the RECs, as well as for the OUCC's auditor responsible for reviewing the REC sales and confirming that the net proceeds have been reflected appropriately in Petitioner's filings.

Ms. Sieferman testified that Petitioner's proposal to include the net proceeds in the FAC proceeding rather than in Rider 62 would not negatively impact customers. Regardless of which mechanism is used to pass through any net REC proceeds, Petitioner's customers are still receiving the benefit of those proceeds. Including them in the FAC filing would result in flowing through benefits of any REC sales to customers sooner than if they were included in Rider 62, simply due to the FAC filings being quarterly versus the Rider 62 filing being done semi-annually. Also, there would be a somewhat different allocation of the proceeds to each customer class depending on the mechanism used, as amounts included in the FAC would be allocated to customer classes based on an energy allocator versus amounts in Rider 62 are allocated based on a demand allocator. Given that the RECs will be granted based on the actual energy generated at the Crane Solar Facility, Petitioner proposed the use of an energy allocator for the RECs.

Ms. Sieferman further testified that Petitioner's customers would benefit from the Federal ITC as any ITC value that Petitioner receives from its investment in the Crane Solar Facility will reduce the revenue requirement over the depreciable life of the solar property in accordance with federal tax laws. Ms. Sieferman also explained that Petitioner proposes to include the ITC benefit associated with the Crane Solar Facility in Rider 71 (reducing the customer impact of the Rider) over the life of the plant, beginning as soon as Petitioner is able to utilize the credit per the tax normalization rules.

Ms. Sieferman testified that the expected life of the proposed Crane Solar Facility was thirty (30) years and Petitioner proposed that the depreciation rate for the facility be based on this expected useful life. Because there are no similar generating facilities included in Petitioner's most recently approved depreciation study, Petitioner requests the Commission's specific approval of a new depreciation rate of 3.33%, based on the expected thirty (30) year life, to be used for the Crane Solar Facility. Ms. Sieferman also testified that the proposed depreciation rate did not include recognition of possible net negative salvage or dismantling costs. When a new depreciation study is completed, the depreciation rate will be updated to reflect any estimated net negative salvage or dismantling costs associated with the Crane Solar Facility.

Ms. Sieferman summarized the estimated rate impacts of the Crane Solar Facility in Petitioner's Exhibit 4-A, which showed estimated rate impacts based on data provided by Mr. Vann K. Stephenson. The average retail rate impact at its peak in year two was estimated to be a 0.3% increase over total retail revenues for the twelve months ended June 30, 2015. For this estimation, Petitioner took a conservative approach by not including anything in the first five (5) years for monetization of solar RECs or for flow through of ITC benefits. The actual rate impact will vary based on a number of variables such as:

- The final construction costs of the Crane Solar Facility;
- The actual AFUDC rate;
- The actual capital structure, cost of capital rates, and revenue conversion factors in effect for the Rider filings;
- Timing of the project expenditures and approvals under the Rider filings;
- Actual operating expenses incurred, including O&M, property taxes and property insurance; and
- Final amount of ITC and timing of utilization.

Ms. Sieferman concluded her Direct Testimony by bringing to the Commission's attention that in order to more clearly reflect the ongoing nature of costs included in Standard Rider Nos. 62 and 71, Petitioner is proposing to modify the names of Rider No. 62 and Rider No. 71 to "Clean Energy Investment Adjustment" and "Clean Energy Operating Cost Adjustment," respectively. Petitioner provided the Commission with Petitioner's Exhibits 4-B and 4-C, red-lined versions of the Tariffs reflecting the name changes to Rider Nos. 62 and 71, respectively, and Petitioner's Exhibits 4-D and 4-E, updated versions of the Table of Contents and Appendix A, respectively.

5. Settlement Agreement. Prior to the OUCC filing testimony and prior to the evidentiary hearing being held in this proceeding, Petitioner and the OUCC entered into a Settlement Agreement. The substantive terms of the Settlement Agreement are as follows:

Agreements on Requested CPCN

1. The Settling Parties agree that Duke Energy Indiana should be granted a certificate of public convenience and necessity ("CPCN") for a new 17 MW_{AC}/24 MW_{DC} solar generation project to be located at the Naval Support Activity – Crane ("NSA Crane") (referred to herein as the "Crane Solar Facility"), as described in Duke Energy Indiana's direct testimony in this Cause. The Crane Solar Facility will be interconnected at 69 kV transmission voltage. The planned interconnection to Duke Energy Indiana transmission facilities is currently awaiting required approval from the Midcontinent Independent System Operator ("MISO"). The Settling Parties further agree that the proposed 17 MW_{AC}/24 MW_{DC} is part of the 20 MW_{AC} new renewable energy generation capacity planned for 2017, as included in Petitioner's most recent Integrated Resource Plan ("IRP"), submitted to the Commission on or about November 1, 2015.
2. The Settling Parties agree that Petitioner's cost estimate of \$41.3 million, including a contingency of approximately four per cent (4%) of the total project cost, exclusive of AFUDC and post-in-service carrying costs, constitutes a reasonable estimate of Petitioner's construction costs for the Crane Solar Facility referenced above and described in Duke Energy Indiana's direct testimony in this Cause. Duke Energy Indiana agrees not to seek cost recovery from its customers for project costs in excess of \$41.3 million, plus its actual, accrued AFUDC and post-in-service carrying costs. However, to the extent MISO requires additional, unexpected transmission upgrades as part of Duke Energy Indiana's interconnection application for the Crane Solar

Facility, Petitioner may seek to recover those expenses through a subsequent proceeding under a new utility-owned renewable energy generation project rider. Duke Energy Indiana agrees to file an update in this docket once MISO provides the interconnection agreement, stating the projected cost of any additional system improvements MISO required to approve Petitioner's interconnection with the Crane Solar Facility. Duke Energy Indiana agrees to provide supporting documentation and workpapers to the OUCC before seeking recovery of those expenses in a subsequent proceeding under the new utility-owned renewable energy generation project rider if the additional MISO-required interconnection costs exceed \$1 Million. Approved project costs will be recovered as provided in section B of this Agreement.

3. Based on Petitioner's direct testimony in this Cause, the Settling Parties agree that the Crane Solar Facility is a "clean energy project" as defined in Indiana Code § 8-1-8.8-2.
4. In lieu of cash payments for the fair market value of the site lease for use of NSA Crane land where Duke Energy Indiana's solar generation and related facilities will be located, the Settling Parties agree that Duke Energy Indiana should be permitted to:
 - a. Install a remote operable switch on the 69 kV line that serves NSA Crane, allowing isolation of the Crane Solar Facility from Petitioner's transmission network under certain limited circumstances, and
 - b. Study the feasibility of incorporating future grid-tied energy storage technologies to maintain electric services for critical loads during a significant regional outage event.

Duke Energy Indiana agrees not to seek recovery from its customers of amounts in excess of \$ 400,000 for the items listed in sub-sections (a) and (b) above. This amount is not included in the cost cap of \$41.3 million listed in A2 above. To the extent Duke Energy Indiana makes additional investment arising from or related to the feasibility study in subsection (b) above, that investment may be the subject of a future regulatory proceeding.

5. The Settling Parties agree that Duke Energy Indiana can include amounts related to the above items in a new annual rider specific to utility-owned renewable energy generation projects, using cost recovery methodology that mirrors the methodology currently used under Petitioner's existing Standard Contract Rider Nos. 62 and 71. The initial filing for this new utility-owned renewable energy generation project rider will take place within 90 days after the Crane Solar Facility is declared in-service. Thereafter, the annual filing will be filed no later than January 31 of each year with a cut-off for financial data as of September 30 of each year, until the Commission determines the Crane Solar Facility is used and useful in a proceeding that involves the establishment of Duke Energy Indiana's base retail electric rates. To the extent the new rider for utility-owned renewable energy generation projects includes expenses associated with other Commission approved utility-owned renewable energy generation projects other than the Crane Solar Facility that are not reflected in

Petitioner's base retail electric rates, the annual utility-owned renewable energy generation project rider filings may continue, as needed, at a project-based level of granularity.

6. The Settling Parties agree that Duke Energy Indiana may install a remote operable switch for Petitioner's exclusive use, the activation of which could allow NSA Crane to purchase all of the solar power generated by the Crane Solar Facility in the event of a catastrophic grid failure in the region during which Duke Energy Indiana is unable to energize the transmission line to which the Crane Solar Facility is connected and NSA Crane does not have access to any other public utility for back-up power. Further, the referenced remote operable switch may only be activated to allow energy from the Crane Solar Facility to be purchased by NSA Crane if and to the extent that:
 - a. NSA Crane has the technical ability to take delivery of the energy from the Crane Solar Facility;
 - b. Such action does not adversely affect service or cost of service to other Duke Energy Indiana customers;
 - c. Such action is consistent with MISO and other applicable regulatory requirements; and
 - d. Any power thus taken is purchased at Petitioner's published tariff rates.

7. In December 2016, Duke Energy Indiana agrees to file a written report in this Cause on the status of construction and construction costs incurred during the previous twelve (12) months. Petitioner agrees to notify the Commission of project completion within sixty (60) days of the in-service date. Thereafter, Duke Energy Indiana agrees to provide written annual updates as part of its annual utility-owned renewable energy generation project rider proceedings, beginning with its 2017 filing. The testimony shall contain the following information: generation output of the solar generation system (with monthly detail), the actual revenue requirement during the twelve (12) months covered by the report ("reporting period"), the cost per kWh of electricity generated by the Crane Solar Facility during the reporting period, the total renewable energy credit ("REC") proceeds (in U.S. dollars) associated with Duke Energy Indiana's solar generation at NSA Crane, and the average annual billing impact on all customer classes. Each annual report should also indicate whether NSA Crane has purchased energy directly from the Crane Solar Facility at any time during the reporting period and, if so, the amount of generation (in kWh) NSA Crane purchased from Duke Energy Indiana's Crane Solar Facility during each isolation event, along with the starting date and time and the ending date and time of each such event. The OUCC or the Commission may request information and meetings concerning the frequency, timing and duration of events involving regional grid failures of Duke Energy Indiana's transmission network serving the Crane Solar Facility.

8. Duke Energy Indiana agrees to provide to the OUCC a copy of the final report on the feasibility study assessing energy security options at NSA Crane, including possible integration of new and existing distributed energy resources, control and

communications equipment, and other facilities or equipment at the site. Within sixty (60) days of submitting that report, Duke also agrees to meet with the OUCC to discuss the results of the feasibility study, unless the OUCC determines that such a meeting is not required, after reviewing Petitioner's final report.

Agreed Ratemaking Terms

1. The Settling Parties agree that upon Commission approval of the Crane Solar Facility as a "clean energy project," Duke Energy Indiana will be allowed to commence construction work in progress ("CWIP") ratemaking treatment for the retail jurisdictional portion of the Crane Solar Facility project via a new annual utility-owned renewable energy generation project rider dedicated to renewable energy projects owned by Petitioner. The methodology used to compute that new rider will be consistent with the methodology currently used to compute Riders 62 and 71. The Settling Parties' agreed new utility-owned renewable energy generation project rider will be included in testimony supporting this Agreement.
2. For the new utility-owned renewable energy generation project rider, CWIP will be calculated in a manner consistent with the methodology currently used to compute Rider 62.
3. The Settling Parties agree that the costs of the projects described in term A.4. can be deferred for future recovery via the new utility-owned renewable energy generation project rider dedicated to renewable energy projects based on a five (5) year amortization period, without carrying charges, until the unamortized balance is included in Petitioner's base retail electric rates.
4. The Settling Parties agree to Petitioner's request for accrual as a regulatory asset of post-in-service carrying costs (including accrual on previously computed post-in-service carrying costs, compounded monthly) on the retail jurisdictional portion of the Crane Solar Facility's capital expenditures at Petitioner's AFUDC rates once the project is placed in service until such expenditures and post-in-service carrying costs are recovered in Petitioner's retail rates. The retail post-in-service carrying costs balance (net of amortizations) will be added to the retail net plant investment to determine the basis for calculating the return component of the revenue requirements. The Settling Parties agree that post-in-service carrying costs (accrued at the AFUDC rate) will be amortized over the life of the asset (30 years).
5. The Settling Parties agree that the retail jurisdictional portion of O&M expenses, depreciation, payroll taxes, property taxes, and property insurance costs associated with the Crane Solar Facility can be deferred and recovered in the new utility-owned renewable energy generation project rider discussed above until such expenses are included in Petitioner's base retail electric rates .
6. Duke Energy Indiana agrees to include the full Investment Tax Credit ("ITC") benefit associated with the Crane Solar Facility in the new utility-owned renewable energy

generation project rider discussed above (reducing the customer impact of that rider by the full amount of the Investment Tax Credit) over the life of the new utility-owned renewable energy generation facilities, with that offset to the impact of that rider beginning as soon as Petitioner is able to utilize the credit under applicable tax normalization rules, until such benefit is included in Petitioner's base retail electric rates.

7. In each new utility-owned renewable energy generation project rider proceeding after the in-service date for the Facility, Petitioner will provide testimony as to the status of Petitioner's ability to utilize ITC credits in the relevant recovery period and the then-current estimated timing for utilization going forward. After the Crane Solar Facility is included in base retail electric rates, that status update no longer needs to be reported so long as the ITC credits associated with the Crane Solar Facility are also included as an offset to revenue requirement in base retail electric rates.
8. Duke Energy Indiana agrees to monetize the solar renewable energy credits ("RECs") received as a result of solar generation at the Crane Solar Facility as opportunities arise through open market sales. The net proceeds resulting from the sale of any Crane Solar Facility RECs will be used as an offset to revenue requirements and returned to customers through the new utility-owned renewable energy generation project rider created for renewable energy projects. The Settling Parties agree that, in the future, should Duke Energy Indiana become subject to a renewable portfolio standard or other renewable energy regulatory requirements, then Duke Energy Indiana may request that RECs from solar generation from the Crane Solar Facility will be maintained by Petitioner and counted toward Duke Energy Indiana's renewable generation requirement. In proceedings regarding cost recovery for the Crane Solar Facility, Petitioner will prefile testimony as to the status of the REC market and its attempts to maximize the benefits of the RECs for Duke Energy Indiana's customers. The parties further agree that, Duke Energy Indiana may not use RECs from generation at that facility for Petitioner's below-the-line Green Power Program.
9. The Settling Parties agree that the expected life of the proposed Crane Solar Facility is thirty (30) years and Petitioner should be entitled to recover the cost of the facility via depreciation (up to the agreed capitalized cost cap) based on the expected useful life. The Settling Parties further agree that a depreciation rate of 3.33%, based on the expected thirty (30) year life is appropriate for the Crane Solar Facility, until such time as a new depreciation rate supported by a depreciation study is approved by the Commission in a future proceeding.
10. All Duke Energy Indiana electric customers must receive an allocation of net revenue requirement (net after applicable credits) under the new utility-owned renewable energy generation project rider, in a manner consistent with current allocation of the revenue requirements in Riders 62 and 71. Revenue credits will be provided to customers via Rider No. 71, as described in the testimony of Kent K. Freeman in Cause No. 42061 ECR 15. The revenue credits associated with this new utility-

owned renewable energy project rider will be described in Duke Energy Indiana's testimony in the rider proceeding. The Settling Parties further agree that Petitioner will continue this ratemaking treatment until the Commission determines this project is used and useful in a proceeding that involves the establishment of Petitioner's base retail electric rates, or longer if ordered by the Commission.

A. Duke Energy Indiana's Settlement Testimony. Ms. Birmingham-Byrd testified that Petitioner was requesting the Commission find the Settlement Agreement is reasonable, equitable, supported by substantial record evidence, and in the public interest, and that the Commission approve the Settlement Agreement in its entirety, without changes or conditions. In addition, and consistent with the Settlement Agreement, Petitioner is requesting that the Commission: (1) find that the Crane Solar Facility, located on land leased to Duke Energy Indiana by NSA Crane, meets the requirements of Ind. Code 8-1-8.5 and grant Duke Energy Indiana a CPCN; and (2) approve its proposed accounting and ratemaking treatment related to constructing, owning, and operating the Crane Solar Facility.

Ms. Birmingham-Byrd summarized the substantive settlement terms as: (1) a cap on construction costs of \$41.3 million, exclusive of AFUDC and post-in-service carrying costs; (2) a limitation on recovery of \$400,000 for the remote operable switch and the feasibility study, the costs of which will be incurred by Duke Energy Indiana in lieu of land lease payments; (3) recovery of the costs associated with the remote operable switch and feasibility study over a five year amortization period without carrying costs; (4) the creation of a new utility-owned renewable energy project rider; (5) an agreement to provide supporting documentation and workpapers to the OUCC prior to seeking to recover additional, unexpected transmission upgrade expenses in a subsequent renewable energy project rider proceeding if the additional MISO-required interconnection costs exceed \$1 million; (6) provisions related to reporting and update requirements; and (7) an agreement that Duke Energy Indiana should be permitted to accrue post-in-service carrying costs, and recover them over thirty (30) years.

Ms. Birmingham-Byrd testified Petitioner is reasonably assured that construction of the proposed Crane Solar Facility will be completed within its estimated cost of \$41.3 million. Furthermore, Petitioner expects to complete construction for an in-service date of December 31, 2016. With the relatively limited construction associated with a solar facility and the anticipated timeframe for that construction, Duke Energy Indiana was confident enough in the accuracy of its projected costs to agree to limit its recovery to its current estimate of \$41.3 million. The exception to that limitation would be a situation where MISO unexpectedly requires additional transmission upgrade costs as part of Duke Energy Indiana's interconnection application with MISO.

Ms. Birmingham-Byrd testified that Petitioner has not received the final MISO interconnection study; however, Duke Energy Indiana does not anticipate any significant additional costs. To the extent MISO requires transmission upgrades or interconnection costs, Petitioner has committed to provide supporting documentation and workpapers to the OUCC regarding those additional costs, if they exceed \$1 million, prior to seeking recovery. Pursuant to the Settlement Agreement, Petitioner agrees to file an update in this docket once MISO provides

the interconnection agreement, stating the projected cost of any additional system improvements MISO requires to approve the Petitioner's interconnection with the Crane Solar Facility.¹

Ms. Birmingham-Byrd testified as to how the Settlement Agreement will treat the expenses incurred in lieu of lease payments. She testified that the Settling Parties agreed that in lieu of cash payments for the fair market value of the site lease for use of NSA Crane land where Duke Energy Indiana's solar generation and related facilities will be located, Duke Energy Indiana will be permitted to: (a) install a remote operable switch on the 69 kV line that serves NSA Crane, allowing isolation of the Crane Solar Facility from Petitioner's transmission network under certain limited circumstances, and (b) study the feasibility of incorporating future grid-tied energy storage technologies to maintain electric services for critical loads during a significant regional outage event. Petitioner agrees not to seek cost recovery in excess of \$400,000 for these items. She noted that the costs for the remote operable switch and the feasibility study are not included in the agreed project cap of \$41.3 million. The Settling Parties also agreed that the remote operable switch will be for Duke Energy Indiana's exclusive use. The Settlement Agreement provides that the remote operable switch can be activated under the following conditions:

1. NSA Crane has the technical ability to take delivery of the energy from the Crane Solar Facility;
2. Such action does not adversely affect service or cost of service to other Duke Energy Indiana customers;
3. Such action is consistent with MISO and other applicable regulatory requirements; and
4. Any power thus taken is purchased at Duke Energy Indiana's published tariff rates.

Ms. Birmingham-Byrd testified that also pursuant to the Settlement Agreement, Petitioner would provide the OUCC with a copy of the final report on the feasibility study assessing energy security options at NSA Crane and agrees to meet with the OUCC within 60 days of providing the report to discuss the results of the feasibility study, at the OUCC's option. To the extent Petitioner makes additional investment arising from or related to the feasibility study, that investment is not addressed in this settlement, but could be the subject of a future regulatory proceeding.

Ms. Birmingham-Byrd testified as to how the costs associated with the Crane Solar Facility would be recovered, stating that Petitioner and the OUCC agreed that Petitioner would create a new renewable energy project rider that would be filed annually.

Ms. Birmingham-Byrd testified as to the reporting requirements that were included in the Settlement Agreement, stating that Petitioner agreed to file a written report in December 2016 that would include information on the status of construction and construction costs incurred over the previous 12 months. Petitioner will also notify the Commission within 60 days of the project's in-service date. After these initial filings, Petitioner will provide informational updates

¹ After the hearing and the closing of the record, Petitioner filed its Notice on June 7, 2016.

in its ongoing rider filings. The information to be included in the ongoing rider filings is as follows:

- Generation output of the solar generation system (with monthly detail);
- The actual revenue requirement during the twelve (12) months covered by the report (“reporting period”);
- The cost per kWh of electricity generated by the Crane Solar Facility during the reporting period;
- The total REC proceeds (in U.S. dollars) associated with Petitioner’s solar generation at NSA Crane;
- The average annual billing impact on all customer classes; and
- Whether NSA Crane has purchased energy directly from the Crane Solar Facility at any time during the reporting period and, if so, the amount of generation (in kWh) NSA Crane purchased from Petitioner’s Crane Solar Facility during each isolation event, along with the starting date and time and the ending date and time of each such event.

Ms. Birmingham-Byrd testified that any RECs received as a result of solar generation at the Crane Solar Facility would be monetized through open market sales. The net proceeds resulting from the sale of any Crane Solar Facility RECs would be used as an offset to revenue requirements and returned to customers through the new rider. The Settling Parties also agreed that, in the future, should Petitioner become subject to a renewable portfolio standard or other renewable energy regulatory requirements, Petitioner may request that RECs from solar generation from the Crane Solar Facility be maintained by Duke Energy Indiana and counted toward Petitioner’s renewable generation requirement. In proceedings regarding cost recovery for the Crane Solar Facility, Duke Energy Indiana will prefile testimony as to the status of the REC market and its attempts to maximize the benefits of the RECs for Petitioner’s customers. Finally, the Settling Parties agreed that Petitioner may not use RECs from generation at that facility for the Petitioner’s below-the-line GoGreen Program.

Ms. Birmingham-Byrd concluded her Settlement Testimony by explaining that she believes the Settlement Agreement is good for customers, is reasonable, serves the public interest, and will allow Petitioner to recover its prudently incurred costs associated with the Crane Solar Facility. Furthermore, the Commission and the public will be informed of the status of the project through the initial informational filings and ongoing rider filings.

Ms. Siefertman testified that she was familiar with the terms of the Settlement Agreement reached in this proceeding and summarized the ratemaking terms. The Settling Parties agreed that Petitioner’s proposed Crane Solar Facility should be approved by the Commission as a “clean energy project” and Petitioner should be entitled to timely recover its associated construction and operating costs. Specifically, the Settling Parties agreed that Petitioner should be allowed to recover the retail jurisdictional portion of the construction and operating costs associated with the proposed Crane Solar Facility, including the use of CWIP ratemaking treatment, via a new renewable energy project rider (“Renewable Energy Project Rider” or “Rider 73”) dedicated to utility-owned renewable energy projects. The Settling Parties have agreed that Duke Energy Indiana should create this new rider, because they believe the

establishment of a Renewable Energy Project Rider would provide for more transparency than would be likely if recovery for the Crane Solar Facility was included in an existing rider mechanism with multiple unrelated projects. The methodology used to compute the Renewable Energy Project Rider will be consistent with the methodology currently used to compute Riders 62 and 71, which is where the Duke Energy Indiana initially proposed to recover costs associated with the Crane Solar Facility. The Settling Parties have also agreed that this new Renewable Energy Project Rider should be filed on an annual basis to minimize compliance costs.

Ms. Sieferman testified that the Settling Parties agreed that Petitioner may recover the costs for the remote operable switch and the feasibility study, both of which are being provided by Petitioner in exchange for leasing the land where the proposed Crane Solar Facility will be sited, up to \$400,000. The Settling Parties also agreed that those expenses can be deferred for future recovery through the Renewable Energy Project Rider and amortized using a five (5) year amortization period, without carrying charges, until the unamortized balance is included in Duke Energy Indiana's base retail electric rates. Additionally, the Settling Parties agreed that Petitioner should be permitted to accrue, as a regulatory asset, post-in-service carrying costs (including accrual on previously computed post-in-service carrying costs, compounded monthly) on the retail jurisdictional portion of the Crane Solar Facility's capital expenditures at the Petitioner's AFUDC rates once the project is placed in service until such expenditures and post-in-service carrying costs are recovered in the Petitioner's retail rates. The retail post-in-service carrying costs balance (net of amortizations) will be added to the retail net plant investment to determine the basis for calculating the return component of the revenue requirement. The Settling Parties agree that the post-in-service carrying costs will be amortized over the life of the asset (30 years).

Ms. Sieferman testified as to the proposed recovery of operating costs related to the Crane Solar Facility. As to the retail jurisdictional portion of other costs, such as O&M expenses, depreciation, payroll taxes, property taxes, and property insurance costs associated with the Crane Solar Facility, the Settling Parties agreed that those costs would be recovered in the Renewable Energy Project Rider until such expenses are included in Duke Energy Indiana's base retail electric rates. The calculation of these amounts to be included in the new rider would be consistent with the methodology currently used in Rider No. 71. In addition, the Settling Parties agreed that Petitioner may defer its operating expenses on an interim basis until such expenses are included for recovery in the new rider.

Ms. Sieferman testified that the Settling Parties agreed that Petitioner would include the ITC benefit associated with the Crane Solar Facility in the Renewable Energy Project Rider, thereby reducing the customer impact of that rider by the retail jurisdictional portion of the full amount of the ITC, over the life of the Crane Solar Facility. That offset to the impact of that rider would begin as soon as the Petitioner is able to utilize the credit under applicable tax normalization rules and will continue until such benefit is included in the Petitioner's base retail electric rates. Ms. Sieferman also testified as to how RECs would be treated per the Settlement Agreement, stating that the Settling Parties agreed that Petitioner would monetize the solar RECs received as a result of solar generation at the Crane Solar Facility as opportunities arise through open market sales. The retail jurisdictional portion of the net proceeds resulting from the sale of any Crane Solar Facility RECs would be used as an offset to revenue requirements and returned

to customers through the Renewable Energy Project Rider. The Settling Parties agreed that, in the future, should Petitioner become subject to a renewable portfolio standard or other renewable energy regulatory requirements, then it may request that RECs from solar generation from the Crane Solar Facility be maintained by Duke Energy Indiana and counted toward its renewable generation requirement. The parties further agreed Petitioner may not use RECs from generation at the Crane Solar Facility for the Petitioner's below-the-line GoGreen Program.

Ms. Sieferman further testified that the Settling Parties agreed that the expected life of the proposed Crane Solar Facility would be 30 years and Duke Energy Indiana should be allowed to recover the cost of the facility via depreciation (up to the agreed capitalized cost cap) based on the expected useful life. The Settling Parties further agreed that a depreciation rate of 3.33%, based on the expected 30-year life for the Crane Solar Facility, is appropriate until a new depreciation rate supported by a depreciation study is approved by the Commission in a future proceeding.

Ms. Sieferman testified as to the frequency in which Petitioner is to file its Renewable Energy Project Rider. The Settling Parties agreed that, on an ongoing basis, this should be an annual rider. The Settling Parties are mindful of the Commission's time and resources and think this new rider is well suited to an annual filing. The initial filing will take place within 90 days after the Crane Solar Facility is declared in-service. Thereafter, the annual filing will be filed no later than January 31 of each year with a cut-off for financial data as of September 30 of each year, until the Commission determines the Crane Solar Facility is used and useful in a proceeding that involves the establishment of the Duke Energy Indiana's base retail electric rates. To the extent the Renewable Energy Project Rider is approved for use with utility-owned renewable energy projects other than the Crane Solar Facility that are not reflected in the Petitioner's base retail electric rates, Duke Energy Indiana may continue to make annual filings for this rider.

Ms. Sieferman testified that the Settlement Agreement required Petitioner to include in each rider filing certain information. The Settling Parties agreed that after the in-service date, Petitioner will provide testimony regarding the status of Duke Energy Indiana's ability to utilize ITC credits in the relevant recovery period and the then-current estimated timing for utilization going forward. After the Crane Solar Facility is included in base retail electric rates, this status update no longer needs to be provided so long as the ITC credits associated with the Crane Solar Facility are also included as an offset to revenue requirements in base retail electric rates. Additionally, the Petitioner will include testimony in the annual rider filings as to the status of the REC market and its attempts to maximize the benefits of the RECs for Petitioner's customers.

Ms. Sieferman testified that there were other ratemaking provisions included in the Settlement Agreement. Petitioner has agreed to provide retail customers with an additional revenue credit related to the proposed Renewable Energy Project Rider. As a result of the Commission's Order in Cause No. 43754, dated February 24, 2010 ("Nucor Contract Order"), Petitioner established a process to reasonably apportion revenue received from Nucor's demand charge assessed on its interruptible load (which was approved within that Order and intended to cover a portion of production related costs) between base rates and Rider Nos. 61, 62 and 71.

Upon approval in this proceeding by the Commission, Duke Energy Indiana will add the Renewable Energy Project Rider to the calculation used to apportion the Nucor demand charge revenues on its interruptible load and begin apportioning between base rates and Rider Nos. 61, 62, 71 and the new Rider 73. For ease of administration, the total revenue credit associated with each of these riders, including the credit apportioned to Rider 73, will be provided to customers via Rider No. 71, as described in the testimony of Mr. Kent F. Freeman in Cause No. 42061-ECR15.

Ms. Siefertman explained the Exhibits attached to her Settlement Testimony. Petitioner's Exhibit 6-A is the proposed Renewable Energy Project Rider for utility-owned renewable generation (or Rider 73), which was based on the design of Riders 62 and 71, and reflects the terms agreed to in the Settlement Agreement for this new rider. Petitioner's Exhibit 6-B is an updated Table of Contents and Petitioner's Exhibit 6-C is an updated Appendix A. Petitioner's Exhibit 6-D shows the estimated rate impacts, which were calculated using data provided by Petitioner's witness Stephenson and updated for impacts of the Settlement Agreement. The average retail rate impact at its peak is estimated to be a 0.2% increase over total retail revenues for the twelve months ended June 30, 2015. For purposes of this estimation, the Petitioner has taken a conservative approach and not included any offset in the first five (5) years reflecting monetization of solar RECs or for flow through of ITC benefits. The actual rate impact will vary based on a number of variables including:

- The final construction costs of the Crane Solar Facility;
- The actual AFUDC rate;
- The actual capital structure, cost of capital rates, and revenue conversion factors in effect for the rider filings;
- Timing of the project expenditures and approvals under the rider filings;
- Actual operating expenses incurred, including operation and maintenance, property taxes and property insurance;
- Actual proceeds amount and timing of any solar REC sales; and
- Final amount of ITC and timing of utilization.

Ms. Siefertman concluded her testimony by stating she believed the agreed upon ratemaking terms provide for reasonable cost recovery while providing related benefits and protections for customers. The use of a separate rider provides for a transparent review of costs associated with the Crane Solar Project and other future utility-owned renewable energy projects, while minimizing any administrative burden required by providing for annual filings.

B. OUCC's Settlement Testimony. Mr. Wes Blakley testified that the purpose of his testimony is to support the Settlement Agreement reached between the Petitioner and the OUCC. Mr. Blakley testified that he believes the QPCP rules under 170 IAC 4-6-1 which govern how the weighted average cost of capital ("WACC") is calculated for QPCP is appropriate for the Crane Solar Project renewable energy tracker. Commission rules for QPCP provide specific instructions on how to calculate the WACC and require cutting-off AFUDC as of the date the Commission issues an Order granting the requested ratemaking treatment in the utility's next base rate case. These general rules have been applied in other CWIP trackers, such as Petitioner's Integrated Gas Combined Cycle ("IGCC") plant in Cause No. 43114 and

Petitioner's Transmission and Distribution System Improvement Cost ("TDSIC") recovery pending in Cause No. 44720. The associated O&M and depreciation expenses are estimated to coincide with project completion and will be reconciled to actual expenses in the next tracker filing. These cost recovery practices are common to all of the existing CWIP trackers and should work well with the new utility-owned renewable generation tracker proposed under the Settlement Agreement reached in this Cause.

Mr. Blakley explained why the OUCC supports the introduction of a new, separate tracker for utility-owned renewable generation projects. Mr. Blakley testified that utility-owned renewable generation is fundamentally different from clean coal projects and one can reasonably expect that more utilities will seek Commission approval of and cost recovery for future utility-owned renewable generation projects. Until more public cost and production data become available for each type of renewable generation, utilities should be required to track costs and generation output at the project level. That will require utilities to maintain separate schedules and cost recovery data for each utility-owned renewable project. In contrast, if utilities investing in renewable generation were permitted to track costs associated with those projects as part of the utility's environmental cost recovery ("ECR") tracker, not only would the result be a blending of vastly different costs under a single tracker, the Commission and the OUCC would lose the value of differentiating between different generation technologies or between different projects using the same renewable technology. Valuable project-specific data could be used to assess not only the overall impact on ratepayers of individual technologies and costs, but also to decide between different types of renewable technology and different applicable cost-recovery principles. The unique project costs and resulting rate impact of the Crane Solar Facility merit further study as the Commission looks for ways to keep public utility rates as low as reasonably possible. Establishing a dedicated tracker would make it simpler and more efficient to analyze project-specific cost data and rate impacts – the type of information the OUCC needs to consider when deciding whether to support or oppose new renewable projects involving various types of utility-owned renewable generation, especially projects that qualify for federal ITCs and/or produce offsetting revenue from the sale of RECs, further reducing overall project costs.

Mr. Blakley testified that the annual reporting requirements in Paragraph A-7 on page 4 of the Settlement Agreement will help educate interested parties, the OUCC and the Commission on the relative cost per kWh of utility scale solar generation deployed in this manner. The type of information Petitioner committed to providing on an annual basis, even after the cost of and return on the Crane Solar Facility are being recovered through base rates, will help provide sufficient data from which to gauge the relative cost-effectiveness of this particular solar installation compared to other solar deployments and other generation technologies.

Mr. Blakley testified that he considers the proposed settlement to be in the public interest and he also believes that a separate tracker for utility-owned renewable generation projects, such as the Crane Solar Facility, will provide all parties with information needed to identify the most cost-effective renewable energy projects for Indiana ratepayers. It is also beneficial to have a consistent approach to calculating the revenue requirement and rates for CWIP trackers. Therefore, from a cost perspective, he supports approval of the proposed Settlement Agreement as a step that will further the public interest in utilizing cleaner generating technologies at the lowest available cost.

Mr. Blakley testified that Petitioner's customers will receive additional financial benefits if the proposed Settlement Agreement is approved by the Commission as Petitioner's customers will enjoy price caps and extended amortization periods negotiated in settlement and the resulting decrease in billing impacts. Petitioner's customers will also enjoy further reductions in future utility bills since available federal ITCs and revenue from future REC sales will be used to reduce the total project cost with further reductions to projected billing impacts.

6. Commission Discussion and Findings.

A. Approval of Settlement Agreement. Duke Energy Indiana and the OUCC reached a negotiated agreement resolving all issues in this proceeding between them, as reflected in the Settlement Agreement filed in this proceeding and unopposed by the CAC. A complete copy of the terms and conditions of the Settlement Agreement can be found in Attachment A to this Order, the terms and conditions of which are incorporated into and made a part of this Order by reference. This Order reviews highlights of the attached Settlement Agreement, discussed in the following order: (1) agreements on requested CPCN, (2) agreed ratemaking terms, (3) subsequent filing requirements, and (4) procedural stipulations regarding the agreement.

In evaluating the Settlement Agreement, the Commission begins with the general statement that settlements presented to the Commission are not ordinary contracts between private parties. *United States Gypsum v. Ind. Gas Co., Inc.*, 735 N.E.2d 790, 803 (Ind. 2000). When the Commission approves a settlement, the settlement "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 (internal citation omitted).

Furthermore, any Commission decision, ruling or order - including approval of a settlement - 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 Serv. Co.*, 582 N.E.2d 330, 333 (Ind. 1991)). The Commission's own procedural rules require that settlements be supported by probative evidence. 170 IAC 1-1.1-17(d). Therefore, before the Commission can approve the Settlement Agreement, we must determine whether the evidence in this Cause sufficiently supports the conclusions that the agreement is reasonable, just, and consistent with the purpose of Indiana Public Service Commission Act (as amended), the Powerplant Construction Act, and the Utility Generation and Clean Coal Technology Act, and serves the public interest.

B. CPCN Request under Ind. Code ch. 8-1-8.5. The proposed Settlement Agreement states that Duke Energy Indiana should be granted a CPCN under Ind. Code ch. 8-1-8.5 for the proposed Crane Solar Facility. Ind. Code § 8-1-8.5-2 states that a public utility must first obtain a CPCN from the Commission prior to constructing, purchasing, or leasing a facility for the generation of electricity. Furthermore, Ind. Code §8-1-8.5-3 provides that the

Commission must analyze and plan for future requirements of electricity and in developing this analysis, the Commission shall confer and consult with the public utilities. In addition, public utilities may be required by statute or rule of the Commission 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.” In this proceeding, Petitioner’s witness Park, testified that Petitioner submitted its 2015 IRP on November 2, 2015, and provided said IRP to the Commission as Petitioner’s Exhibits 3-A and 3-B in this proceeding. Petitioner’s 2015 IRP included the addition of 20 MW of solar-powered generation in 2017.

i. Considerations under Ind. Code § 8-1-8.5-4.

Section 4 of Chapter 8.5 requires the Commission to, prior to acting on any Petition for a CPCN, take into account:

- (1) the applicant's current and potential arrangement with other electric utilities for:
 - (A) the interchange of power;
 - (B) the pooling of facilities;
 - (C) the purchase of power; and
 - (D) joint ownership of facilities; and
- (2) other methods for providing reliable, efficient, and economical electric service, including the refurbishment of existing facilities, conservation, load management, cogeneration and renewable energy sources.

The evidence regarding the alternatives enumerated at Ind. Code § 8-1-8.5-4 permits the Commission to make an informed decision as to whether a pending proposal is in the public interest. As we noted in *PSI Energy, Inc.*, Cause Nos. 41924 and 42145, “the statute does not require a utility to exhaust all statutory alternatives before it may request a CPCN for new capacity.” *PSI Energy, Inc.*, Cause No. 42145, at 14 (IURC Dec. 19, 2002). “Rather, what is important is that the Commission be given enough information so that the Commission can take into account all of the enumerated alternatives in making its determination.” *Id.* “The statute does not limit the Commission's discretion to weigh the importance of each alternative in determining the public interest.” *Id.*

In conformance with the statute, we consider the following:

- (1) Current and Potential Arrangements with other Electric Utilities for:
 - (A) and (B) The Interchange of Power and Pooling of Facilities. With regard to the interchange of power, Petitioner’s witness Park, challenged the adequacy of spot market purchases as a substitute for firm capacity, such as on-system generating resources and reliability purchases. Mr. Park testified that MISO does not allow such purchases to be applied towards a company’s resource adequacy requirements. Pet. Ex. 3, p. 8. In regard to power pooling, the current MISO market effectively utilizes the existing capacity resources in the region, so power

pooling would not provide any further benefits and would not be a viable alternative to meet Petitioner's current capacity needs. Pet. Ex. 3, p. 8.

(C) The Purchase of Market Capacity. Petitioner considered the purchase of market capacity in its analyses. Petitioner assumed the use of short-term capacity purchases to meet the MISO resource adequacy requirements until new generation could be built. Petitioner's analysis uses an annual levelized cost methodology (in \$/kW-year) for the capital cost of new generation that serves as a proxy for annual capacity payments for long-term purchased capacity. The rationale for this assumption is that, in the long run, the cost of purchased capacity will approach the cost of new capacity. Pet. Ex. 3, p. 7.

(D) Joint Ownership of Facilities. NSA Crane offered its land for use specifically to Petitioner and, given the relative size of the Crane Solar Facility and its interconnection with Petitioner's transmission, joint ownership of the Crane Solar Facility was not considered. Furthermore, because all capacity is needed to serve Petitioner's customer needs, joint ownership of the Crane Solar Facility is not a good option. Pet. Ex. 3, p. 8-9.

(E) Renewable Energy Resources. Petitioner considered renewable energy resources in the analyses performed for this proceeding. In addition to the fact that the Crane Solar Facility investment itself is an investment in renewable energy, Petitioner's modeling allowed for the selection of a range of renewable alternatives including wind, solar, and biomass. The optimization model was allowed to select additional levels of renewables above any minimum requirement when it was economical. Pet. Ex. 3, p. 6.

(2) Other Methods for Providing Electrical Service.

(A) The Refurbishment of Existing Facilities. Petitioner considered refurbishment of its existing facilities. As described and accepted by this Commission in Cause Nos. 37414, 38809, 37417-S2, 39175,39312, and 41924, Petitioner has had a refurbishment or Engineering Condition Assessment Program ("ECAP") for a number of years. With this program, Petitioner intends to maintain its generating units, where economically feasible, at their current level of capacity and reliability. Petitioner has performed its ECAP assessment on a number of units and has taken many of the steps necessary to preserve the existing capacity. Petitioner has, in fact, incorporated much of what it has learned about its units into its ongoing maintenance program. Pet. Ex. 3, p. 8.

(B) Conservation and Load Management. Petitioner considered conservation and load management in the analyses performed for this proceeding. As part of the IRP and ongoing projections of capacity needs, Petitioner analyzed the impacts associated with new EE and DR programs and any changes in existing EE or DR programs. The portfolio of existing and proposed EE and DR programs is evaluated to examine the impact on the generation plan in the situation where the current set of programs were to continue and proposed programs were added. The projected incremental load impacts of all programs were then incorporated into the generation portfolio optimization process. Pet. Ex. 3, p. 5-6.

(C) Cogeneration and Renewable Energy Sources. Petitioner considered cogeneration in the analyses performed for this proceeding. Cogeneration has been an option for customers since 1978 under the Public Utilities Regulatory Policies Act. A customer's decision to install cogeneration will be based on the economics of comparing the cost of the cogeneration facilities plus the ongoing operating costs (including whatever fuel is used in the facility) to the cost savings for whatever energy source currently is used to serve the process (gas, electricity or other) and the revenue that can be generated from the sale of the surplus power. Petitioner's 2015 IRP included a standardized cogeneration plant as a resource option for selection by System Optimizer during the portfolio development model runs. The operating characteristics of this resource option were specified using representative data from potential cogeneration projects studied by Duke Energy Indiana. Pet. Ex. 3, p. 6-7.

ii. Findings under Ind. Code § 8-1-8.5-5.

a. Evidence Presented on Construction, Purchase or Lease Costs. The Settlement Agreement caps construction costs at \$41.3 million, exclusive of AFUDC and post in-service carrying costs. Mr. Stephenson testified that Petitioner has entered into a fixed price, firm schedule EPC contract for the construction and installation of the solar array. The transmission interconnection work will be performed under firm price contracts overseen by both Petitioner's transmission organization and project management and construction organization. Pet. Ex. 2, p. 2-3. Mr. Stephenson also provided Petitioner's Confidential Exhibit 2-A, which is Petitioner's cost estimate for the Crane Solar Facility showing that the overall estimate is approximately \$41.3 million, which includes a reasonable contingency amount of approximately \$1.6 million. As stated in testimony and the Settlement Agreement, this estimate does not include provision for estimated AFUDC. Instead the Settlement Agreement provides for approval of estimated project costs, plus the actual, accrued amount of AFUDC.

Petitioner selected the contractors for this project via a competitive bidding process and Petitioner's EPC contractor was selected through a competitive request for proposals. A requirement under the lease agreement with NSA Crane is that suppliers and contractors for this project must comply with the Buy American Act.

According to Mr. Stephenson, over 80% of Petitioner's cost estimate for this project was based on fixed price contracts. It also included Petitioner's estimated labor and indirect costs and a reasonable contingency. Considering the selected contractors' experience in their respective fields, Petitioner does not expect there will be unusual issues or delays. Duke Energy Indiana is confident that its total project cost estimate is reasonable and accurate. Pet. Ex. 2, p. 6 and 8. We agree that Duke Energy Indiana has provided sufficient evidence to support its estimate of construction costs for the Crane Solar Facility, consistent with CPCN statutory requirements.

b. Consistency with Petitioner's Utility-Specific IRP. As outlined in Mr. Park's testimony, Petitioner's 2015 IRP addressed the addition of 20 MW of solar-powered generation in 2017, as follows:

In addition, Duke Energy Indiana is exploring potential additions of renewable energy sources, possibly located on customer sites or

in areas in need of grid support. The renewable energy sources could be paired with energy storage, be part of a micro-grid, or be standalone. Petitioner believes that making investments in smaller, carbon-free energy sources in the near term makes sense, particularly given the increasing number of environmental regulations and related uncertainty. To the extent we are facing a carbon-constrained future, such investments will serve to support the state's carbon reduction goal, while also providing Duke Energy Indiana with valuable experience in managing and integrating renewables, storage and micro-grids with its generation portfolio.

We find that Petitioner's proposed 17 MW Crane Solar Facility is consistent with Petitioner's 2015 IRP.

c. Public Convenience and Necessity. After considering the statutory factors in Ind. Code § 8-1-8.5-4 and 5, we find that Petitioner's resource planning process was consistent with its most recent IRP. The additional solar generation will help satisfy Petitioner's capacity needs and further diversify Petitioner's resource mix. The Settlement Agreement indicates that the OUCC supports the Commission granting the CPCN requested for this project. Further, no intervening party objected to or filed testimony in opposition to the project.

Based on the evidence of record, the Commission finds that the public convenience and necessity requires Petitioner's construction of the 17 MW Crane Solar Facility, subject to the following two conditions:

First, the Settling Parties have agreed to a cost cap of \$41.3 million, exclusive of actual, accrued AFUDC and post in-service carrying costs, based on Petitioner's case-in-chief in this proceeding. We find that our CPCN approval is limited to Petitioner's \$41.3 million estimate of construction costs agreed upon in settlement, with the exception of possible additional transmission-related investments, if any, required by MISO, subject to the terms and conditions of the Settlement Agreement.

Second, Petitioner has requested approval of certain accounting treatment associated with the construction of the Crane Solar Facility. As addressed below, we have made findings with respect to those requests, and those findings are hereby incorporated into the CPCN approval for the Crane Solar Facility.

In conclusion, the Commission finds that, under Ind. Code 8-1-8.5, a CPCN shall be granted to Petitioner for the construction of the Crane Solar Facility. Petitioner shall comply with the reporting requirements set forth below.

d. Ongoing Review. Ind. Code § 8-1-8.5-6(a) provides:

In addition to the review of the continuing need for the facility under construction ... the Commission shall, at the

request of the public utility, maintain an ongoing review of such construction as it proceeds. The applicant shall submit each year during construction or at such other periods as the Commission and the public utility mutually agree, a progress report and any revisions in the cost estimates for the construction.

The Settlement Agreement provides for ongoing review. Specifically, Petitioner agrees to make a status filing in December 2016, regarding the status of construction and construction costs for the past twelve months and a notification within sixty days of the in-service date. Petitioner will also provide the following updated information in its annual Rider filings:

- Generation output of the solar generation system (with monthly detail);
- The actual revenue requirement for the Crane Solar Facility during the 12 months covered by the report (“reporting period”);
- The cost per kWh of electricity generated by the Crane Solar Facility during the reporting period;
- The total REC proceeds (in U.S. dollars) associated with Petitioner’s solar generation at NSA Crane;
- The average annual billing impact on all customer classes; and
- Whether NSA Crane has purchased energy directly from the Crane Solar Facility at any time during the reporting period and, if so, the amount of generation (in kWh) NSA Crane purchased from Petitioner’s Crane Solar Facility during each isolation event, along with the starting date and time and the ending date and time of each such event.

The OUCC emphasized the importance of continuing to receive annual updates from Duke Energy Indiana on the costs associated with this utility-owned renewable generation project (and any similar future projects that might be approved by the Commission) on a project-specific basis, after netting ITCs and REC proceeds, to identify the most cost-effective alternative generation options available. That information should help guide future alternative generation planning and investment decisions. We find that annual reports from the Crane Solar Project will be reviewed on an ongoing basis to help identify and compare costs of different types of utility-owned renewable generation. Petitioner shall file its status report on or before December 30, 2016.

C. Approval of Crane Solar Facility under Ind. Code ch. 8-1-8.8. Indiana Code § 8-1-8.8-11 provides that “[a]n eligible business must file an application to the commission for approval of a clean energy project” and that “[t]he commission shall encourage clean energy projects by creating [certain] financial incentives for clean energy projects, if the projects are found to be reasonable and necessary.” In addition, “solar energy” is specifically listed as one of the clean energy resources in Ind. Code § 8-1-37-4(a)(1) through Ind. Code § 8-1-37-4(a)(16), thus making it a “renewable energy resource” under Ind. Code § 8-1-8.8-10.

The Settling Parties agreed that the proposed Crane Solar Facility meets the requirements of a clean energy project. We agree and therefore find that the proposed project meets the

definition of a “clean energy project” and is eligible for financial incentives.

In accordance with Ind. Code § 8-1-8.8-11, the Settlement Agreement requests that the Commission approve the proposed Crane Solar Facility as reasonable and necessary and authorize timely recovery of the costs and expenses incurred during construction and operation of the proposed Crane Solar Facility through a newly created renewable energy project rider. The Settling Parties have also agreed to the deferral of costs associated with the Crane Solar Facility until they are reflected in Duke Energy Indiana’s retail rates. Therefore, Petitioner requests that such ratemaking and accounting treatment should be authorized for costs associated with this Petition and continue until such costs are timely recovered by Petitioner through its renewable energy project rider, its basic rates and charges, or a combination of both.

As Petitioner and the OUCC have outlined in their Settlement Testimony, the Settling Parties agreed that Petitioner should be allowed to recover the retail jurisdictional portion of the construction and operating costs associated with the proposed Crane Solar Facility, including the use of CWIP ratemaking treatment, via a new Renewable Energy Project Rider, or Rider 73, dedicated to renewable energy projects owned by Duke Energy Indiana. The methodology used to compute the Renewable Energy Project Rider will be consistent with the methodology currently used to compute Riders 62 and 71.

The Settling Parties further agreed that Petitioner should be permitted to accrue, as a regulatory asset, post-in-service carrying costs (including accrual on previously computed post-in-service carrying costs, compounded monthly) on the retail jurisdictional portion of the Crane Solar Facility’s capital expenditures at Duke Energy Indiana’s AFUDC rates once the project is placed in service until such expenditures and post-in-service carrying costs are recovered in the Petitioner’s retail rates. The retail post-in-service carrying costs balance (net of amortizations) will be added to the retail net plant investment to determine the basis for calculating the return component of the revenue requirements. The Settling Parties agree that the post-in-service carrying costs will be amortized over the 30-year life of the asset.

As to the retail jurisdictional portion of other costs, such as O&M expenses, depreciation, payroll taxes, property taxes, and property insurance costs associated with the Crane Solar Facility, the Settling Parties agreed that these costs can be recovered in the Renewable Energy Project Rider until such expenses are included in Duke Energy Indiana’s base retail electric rates. The calculation of these amounts to be included in the new rider would be consistent with the methodology currently used in Rider No. 71. In addition, the Settling Parties agreed that Petitioner may defer its operating expenses on an interim basis until such expenses are included for recovery in the new rider.

The Settling Parties further agreed that the expected life of the proposed Crane Solar Facility will be 30 years and the Petitioner should be allowed to recover the cost of the facility via depreciation up to the agreed capitalized cost cap, based on the expected useful life. The Settling Parties further agreed that a depreciation rate of 3.33%, based on the expected 30-year life for the Crane Solar Facility, is appropriate until the Commission approves a new depreciation rate supported by a depreciation study in a future proceeding.

According to Ind. Code § 8-1-8.8-11, the Commission shall encourage clean energy projects by creating financial incentives for such projects, if found to be reasonable and necessary. The Commission can authorize several different financial incentives for clean energy projects, including the additional relief Duke Energy Indiana has requested in this Cause - namely, the timely recovery through a new rider of costs and expenses incurred during construction and operation of environmental projects, including depreciation on the new renewable generation investment, and the authority to defer capital costs for future recovery, together with carrying costs (CWIP and AFUDC, including post-in-service AFUDC). We find that the financial incentives Duke Energy Indiana requested in this Cause pursuant to Ind. Code § 8-1-8.8-11 should be and are hereby approved for recovery, consistent with the terms of the Settlement Agreement (Attachment A).

The Commission notes that no party to this proceeding opposed Petitioner's proposals regarding the new renewable energy project rider agreed upon in settlement, deferred accounting, recovery of pre- and post-in-service carrying costs, depreciation, and amortization of site-specific costs. Further, Petitioner and the OUCC provided evidence that supports granting such relief. Consistent with the Settlement Agreement, the Commission accordingly finds that Petitioner should be authorized, as provided for in Ind. Code § 8-1-8.8-11(a) to: (1) establish a new renewable energy project rider; (2) timely recover the associated construction and operating expenses through Duke Energy Indiana's newly requested renewable energy project rider for utility-owned renewable energy generation; (3) defer costs associated with the Crane Solar Facility until such costs are reflected in Petitioner's retail rates and charges; (4) approve the new depreciation rate of 3.33% based on the expected 30-year life of the Crane Solar Facility, until such time as a new depreciation rate supported by a depreciation study is approved by the Commission in a future proceeding; (5) install the remote operable switch and perform the feasibility study, as provided in the Settlement Agreement, in lieu of lease payments for the site of the solar installation; and (6) recover up to \$400,000 for costs associated with the remote operable switch and feasibility study over five years without carrying costs.

D. Duke Energy Indiana's Required Compliance with Other Settlement Terms and Conditions. We note that the granting of the above requests is conditioned on Duke Energy Indiana's commitment to meet other agreed terms in the Settlement Agreement that will ensure customers receive certain additional benefits associated with the project, including approved ITCs when available (see Section B, Paragraphs 6 and 7, on page 5 of the Settlement Agreement, Attachment A); off-setting net revenue from the sale of Crane Solar Facility RECs (see Section B, Paragraph 8 on page 6 of Attachment A of this Order); and including amounts from this new rider in the calculation of credits to customers for new revenues under the Nucor contract, which will be credited to customers in Rider 71 as previously approved for Riders 61, 62 and 71. (See Section B, Paragraph 10 on pages 6-7 of Attachment A.) We also note that under the terms and conditions of the Settlement Agreement, Petitioner is not permitted to use RECs from generation at the Crane Solar facility for its below-the-line GoGreen Program. (See Section B, Paragraph 8 on page 6 of Attachment A.)

We also approve the Settling Parties' agreed use of the same cost recovery methodology currently used for Riders 62 and 71 in ECR proceedings in the new rider. The Crane Solar Facility is a utility-owned renewable generation system which will ultimately be included in rate

base. Further, Petitioner will, at a future point in time, receive revenue from the sale of RECs which will be used to reduce the total cost of the Crane Solar Facility. Similarly, at a future point in time, Petitioner will receive valuable ITCs rewarding its investment in renewable generation facilities. Again, the Settlement Agreement calls for ITCs and RECs to be tracked in a way that reduces the total cost of the Crane Solar Facility. We therefore accept the revenue requirement recovery methodology proposed in the Settlement Agreement, both for purposes of cost recovery and to fairly apply later revenue requirement offsets (i.e., ITCs and RECs) to customers paying for the renewable generation facility. As noted by Mr. Blakley, the information provided in this rider will help the Commission, the OUCC, and other interested stakeholders more accurately weigh the relative cost of alternative generation facilities, whether in the context of a utility's integrated resource planning process or in a future CPCN case.

E. Conclusion. Based on the evidence presented, we find that the Settlement Agreement is just, reasonable, and in the public interest, and it should be approved in its entirety, without change.

The Settling Parties agree that the Settlement Agreement should not be used as precedent in any other proceeding or for any other purpose, except to the extent necessary to implement or enforce its terms. (See Section C, Paragraph 4 on pages 7-8 of Attachment A.) Consequently, with regard to future citation of the Settlement Agreement, we find our approval herein should be construed in a manner consistent with our finding in *Richmond Power & Light*, Cause No. 40434, 1997 Ind. PUC LEXIS 459 at *19-22 (IURC March 19, 1997).

F. Confidential Information. Duke Energy Indiana filed a Motion for Protection of Confidential and Proprietary Information ("Confidential Information"), which was granted on a preliminary basis. We find that all such information should continue to be held confidential pursuant to Ind. Code § 8-1-2-29, Ind. Code § 5-14-3-4 and Ind. Code § 24-2-3-2.

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

1. The attached Settlement Agreement between Duke Energy Indiana and the OUCC is hereby approved in its entirety, without change.

2. Petitioner is granted a CPCN for its proposed Crane Solar Facility. This Order shall constitute the Certificate.

3. The proposed Crane Solar Facility is approved as a Clean Energy Project under Ind. Code ch. 8-1-8.8, along with the financial incentives requested herein by the Petitioner, which are authorized under Ind. Code § 8-1-8.8-11.

4. Petitioner is authorized to create a new Renewable Energy Project Rider for utility-owned renewable energy generation, identified as "Rider No. 73," which will be filed with the Commission annually, with the initial filing to take place within 90 days after the Crane Solar Facility is declared in-service. Thereafter, the annual filing will be filed no later than January 31 of each year with a cut-off for financial data as of September 30 of each year until the

Commission determines the Crane Solar Facility is used and useful in a proceeding that involves the establishment of Duke Energy Indiana's base retail electric rates.

5. Petitioner is authorized to timely recover the associated construction and operating expenses through Rider No. 73, Petitioner's Renewable Energy Project Rider for utility-owned renewable generation, subject to Duke Energy Indiana's commitment to comply with the remaining terms of the Settlement Agreement.

6. Petitioner is authorized to defer costs from the Crane Solar Facility until the approved costs are recovered through Petitioner's retail rates and charges.

7. Petitioner is authorized to use the depreciation rate of 3.33%, based on the expected 30-year life of the Crane Solar Facility, until such time as a new depreciation rate supported by a depreciation study is approved by the Commission in a future proceeding.

8. On or before December 30, 2016, Petitioner shall file its status report, and shall provide all future periodic reports in future Rider No. 73 filings in accordance with the Settlement Agreement.

9. The Confidential Information shall continue to be exempt from disclosure under Ind. Code § 8-1-2-29, Ind. Code § 24-2-3-2, and Ind. Code chapter 5-14-3-4.

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

ZIEGNER, HUSTON, AND WEBER CONCUR; STEPHAN ABSENT:

APPROVED: JUL 06 2016

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



Mary M. Becerra
Secretary of the Commission

FILED
April 15, 2016
INDIANA UTILITY
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF DUKE ENERGY INDIANA,)
LLC FOR ISSUANCE OF A CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY UNDER INDIANA)
CODE 8-1-8.5 FOR THE CONSTRUCTION OF A)
SOLAR-POWERED GENERATING FACILITY TO BE)
LOCATED AT NSA CRANE (“CRANE SOLAR)
FACILITY”); APPROVAL OF THE CRANE SOLAR)
FACILITY AS A CLEAN ENERGY PROJECT UNDER)
INDIANA CODE 8-1-8.8; AUTHORIZATION FOR)
TIMELY RECOVERY OF THE ASSOCIATED)
CONSTRUCTION AND OPERATING EXPENSES)
THROUGH THE COMPANY’S EXISTING STANDARD)
CONTRACT RIDER NOS. 62 AND 71; APPROVAL TO)
DEFER COSTS ASSOCIATED WITH THE CRANE)
SOLAR FACILITY UNTIL SUCH COSTS ARE)
REFLECTED IN DUKE ENERGY INDIANA, LLC’S)
RATES AND CHARGES; AND APPROVAL OF A NEW)
DEPRECIATION RATE SPECIFIC TO THE PROPOSED)
CRANE SOLAR FACILITY.)

CAUSE NO. 44734

JOINT STIPULATION AND SETTLEMENT AGREEMENT

The Indiana Office of Utility Consumer Counselor (“OUCC”) and Duke Energy Indiana, LLC (“Duke Energy Indiana” or “Company”) (collectively, the “Settling Parties”) enter into this Joint Stipulation and Settlement Agreement among less than all parties (“Agreement”), agreeing to the following terms and conditions:

A. Agreements on Requested CPCN

1. The Settling Parties agree that Duke Energy Indiana should be granted a certificate of public convenience and necessity (“CPCN”) for a new 17 MW_{AC}/24 MW_{DC} solar generation project to be located at the Naval Support Activity – Crane (“NSA Crane”) (referred to herein as the “Crane Solar Facility”), as described in Duke Energy Indiana’s direct testimony in this Cause. The Crane Solar Facility will be interconnected at 69 kV transmission voltage. The planned interconnection to Duke Energy Indiana transmission facilities is currently awaiting required approval from the Midcontinent Independent System Operator (“MISO”). The Settling Parties

further agree that the proposed 17 MW_{AC}/24 MW_{DC} is part of the 20 MW_{AC} new renewable energy generation capacity planned for 2017, as included in the Company's most recent Integrated Resource Plan ("IRP"), submitted to the Commission on or about November 1, 2015.

2. The Settling Parties agree that the Company's cost estimate of \$41.3 million, including a contingency of approximately four per cent (4%) of the total project cost, exclusive of AFUDC and post-in-service carrying costs, constitutes a reasonable estimate of the Company's construction costs for the Crane Solar Facility referenced above and described in Duke Energy Indiana's direct testimony in this Cause. Duke Energy Indiana agrees not to seek cost recovery from its customers for project costs in excess of \$41.3 million, plus its actual, accrued AFUDC and post-in-service carrying costs. However, to the extent MISO requires additional, unexpected transmission upgrades as part of Duke Energy Indiana's interconnection application for the Crane Solar Facility, the Company may seek to recover those expenses through a subsequent proceeding under a new utility-owned renewable energy generation project rider. Duke Energy Indiana agrees to file an update in this docket once MISO provides the interconnection agreement, stating the projected cost of any additional system improvements MISO required to approve the Company's interconnection with the Crane Solar Facility. Duke Energy Indiana agrees to provide supporting documentation and workpapers to the OUCC before seeking recovery of those expenses in a subsequent proceeding under the new utility-owned renewable energy generation project rider if the additional MISO-required interconnection costs exceed \$1 Million. Approved project costs will be recovered as provided in section B of this Agreement.
3. Based on the Company's direct testimony in this Cause, the Settling Parties agree that the Crane Solar Facility is a "clean energy project" as defined in Indiana Code § 8-1-8.8-2.
4. In lieu of cash payments for the fair market value of the site lease for use of NSA Crane land where Duke Energy Indiana's solar generation and related facilities will be located, the Settling Parties agree that Duke Energy Indiana should be permitted to:
 - a. Install a remote operable switch on the 69 kV line that serves NSA Crane, allowing isolation of the Crane Solar Facility from the Company's transmission network under certain limited circumstances, and
 - b. Study the feasibility of incorporating future grid-tied energy storage technologies to maintain electric services for critical loads during a significant regional outage event.

Duke Energy Indiana agrees not to seek recovery from its customers of amounts in excess of \$ 400,000 for the items listed in sub-sections (a) and (b) above. This amount is not included in the cost cap of \$41.3 million listed in A2 above. To the extent Duke Energy Indiana makes additional investment arising from or related to the feasibility study in subsection (b) above, that investment may be the subject of a future regulatory proceeding.

5. The Settling Parties agree that Duke Energy Indiana can include amounts related to the above items in a new annual rider specific to utility-owned renewable energy generation projects, using cost recovery methodology that mirrors the methodology currently used under the Company's existing Standard Contract Rider Nos. 62 and 71. The initial filing for this new utility-owned renewable energy generation project rider will take place within 90 days after the Crane Solar Facility is declared in-service. Thereafter, the annual filing will be filed no later than January 31 of each year with a cut-off for financial data as of September 30 of each year, until the Indiana Utility Regulatory Commission ("Commission") determines the Crane Solar Facility is used and useful in a proceeding that involves the establishment of Duke Energy Indiana's base retail electric rates. To the extent the new rider for utility-owned renewable energy generation projects includes expenses associated with other Commission approved utility-owned renewable energy generation projects other than the Crane Solar Facility that are not reflected in the Company's base retail electric rates, the annual utility-owned renewable energy generation project rider filings may continue, as needed, at a project-based level of granularity.
6. The Settling Parties agree that Duke Energy Indiana may install a remote operable switch for the Company's exclusive use, the activation of which could allow NSA Crane to purchase all of the solar power generated by the Crane Solar Facility in the event of a catastrophic grid failure in the region during which Duke Energy Indiana is unable to energize the transmission line to which the Crane Solar Facility is connected and NSA Crane does not have access to any other public utility for back-up power. Further, the referenced remote operable switch may only be activated to allow energy from the Crane Solar Facility to be purchased by NSA Crane if and to the extent that:
 - a. NSA Crane has the technical ability to take delivery of the energy from the Crane Solar Facility;
 - b. Such action does not adversely affect service or cost of service to other Duke Energy Indiana customers;
 - c. Such action is consistent with MISO and other applicable regulatory requirements; and

- d. Any power thus taken is purchased at the Company's published tariff rates.
7. In December 2016, Duke Energy Indiana agrees to file a written report in this Cause on the status of construction and construction costs incurred during the previous twelve (12) months. The Company agrees to notify the Commission of project completion within sixty (60) days of the in-service date. Thereafter, Duke Energy Indiana agrees to provide written annual updates as part of its annual utility-owned renewable energy generation project rider proceedings, beginning with its 2017 filing. The testimony shall contain the following information: generation output of the solar generation system (with monthly detail), the actual revenue requirement during the twelve (12) months covered by the report ("reporting period"), the cost per kWh of electricity generated by the Crane Solar Facility during the reporting period, the total renewable energy credit ("REC") proceeds (in U.S. dollars) associated with Duke Energy Indiana's solar generation at NSA Crane, and the average annual billing impact on all customer classes. Each annual report should also indicate whether NSA Crane has purchased energy directly from the Crane Solar Facility at any time during the reporting period and, if so, the amount of generation (in kWh) NSA Crane purchased from Duke Energy Indiana's Crane Solar Facility during each isolation event, along with the starting date and time and the ending date and time of each such event. The OUCC or the Commission may request information and meetings concerning the frequency, timing and duration of events involving regional grid failures of Duke Energy Indiana's transmission network serving the Crane Solar Facility.
 8. Duke Energy Indiana agrees to provide to the OUCC a copy of the final report on the feasibility study assessing energy security options at NSA Crane, including possible integration of new and existing distributed energy resources, control and communications equipment, and other facilities or equipment at the site. Within sixty (60) days of submitting that report, Duke also agrees to meet with the OUCC to discuss the results of the feasibility study, unless the OUCC determines that such a meeting is not required, after reviewing the Company's final report.

B. Agreed Ratemaking Terms

1. The Settling Parties agree that upon Commission approval of the Crane Solar Facility as a "clean energy project," Duke Energy Indiana will be allowed to commence construction work in progress ("CWIP") ratemaking treatment for the retail jurisdictional portion of the Crane Solar Facility project via a new annual utility-owned renewable energy generation project rider dedicated to renewable energy projects owned by the Company. The methodology used to compute that new rider will be consistent with the methodology currently used to compute Riders 62 and 71.

The Settling Parties' agreed new utility-owned renewable energy generation project rider will be included in testimony supporting this Agreement.

2. For the new utility-owned renewable energy generation project rider, CWIP will be calculated in a manner consistent with the methodology currently used to compute Rider 62.
3. The Settling Parties agree that the costs of the projects described in term A.4. can be deferred for future recovery via the new utility-owned renewable energy generation project rider dedicated to renewable energy projects based on a five (5) year amortization period, without carrying charges, until the unamortized balance is included in the Company's base retail electric rates.
4. The Settling Parties agree to the Company's request for accrual as a regulatory asset of post-in-service carrying costs (including accrual on previously computed post-in-service carrying costs, compounded monthly) on the retail jurisdictional portion of the Crane Solar Facility's capital expenditures at the Company's AFUDC rates once the project is placed in service until such expenditures and post-in-service carrying costs are recovered in the Company's retail rates. The retail post-in-service carrying costs balance (net of amortizations) will be added to the retail net plant investment to determine the basis for calculating the return component of the revenue requirements. The Settling Parties agree that post-in-service carrying costs (accrued at the AFUDC rate) will be amortized over the life of the asset (30 years).
5. The Settling Parties agree that the retail jurisdictional portion of O&M expenses, depreciation, payroll taxes, property taxes, and property insurance costs associated with the Crane Solar Facility can be deferred and recovered in the new utility-owned renewable energy generation project rider discussed above until such expenses are included in the Company's base retail electric rates .
6. Duke Energy Indiana agrees to include the full Investment Tax Credit ("ITC") benefit associated with the Crane Solar Facility in the new utility-owned renewable energy generation project rider discussed above (reducing the customer impact of that rider by the full amount of the Investment Tax Credit) over the life of the new utility-owned renewable energy generation facilities, with that offset to the impact of that rider beginning as soon as the Company is able to utilize the credit under applicable tax normalization rules, until such benefit is included in the Company's base retail electric rates.
7. In each new utility-owned renewable energy generation project rider proceeding after the in-service date for the Facility, the Company will provide testimony as to the status of the Company's ability to utilize ITC credits in the relevant recovery period

and the then-current estimated timing for utilization going forward. After the Crane Solar Facility is included in base retail electric rates, that status update no longer needs to be reported so long as the ITC credits associated with the Crane Solar Facility are also included as an offset to revenue requirement in base retail electric rates.

8. Duke Energy Indiana agrees to monetize the solar renewable energy credits ("RECs") received as a result of solar generation at the Crane Solar Facility as opportunities arise through open market sales. The net proceeds resulting from the sale of any Crane Solar Facility RECs will be used as an offset to revenue requirements and returned to Customers through the new utility-owned renewable energy generation project rider created for renewable energy projects. The Settling Parties agree that, in the future, should Duke Energy Indiana become subject to a renewable portfolio standard or other renewable energy regulatory requirements, then Duke Energy Indiana may request that RECs from solar generation from the Crane Solar Facility will be maintained by the Company and counted toward Duke Energy Indiana's renewable generation requirement. In proceedings regarding cost recovery for the Crane Solar Facility, the Company will prefile testimony as to the status of the REC market and its attempts to maximize the benefits of the RECs for Duke Energy Indiana's customers. The parties further agree that, Duke Energy Indiana may not use RECs from generation at that facility for the Company's below-the-line Green Power Program.
9. The Settling Parties agree that the expected life of the proposed Crane Solar Facility is thirty (30) years and the Company should be entitled to recover the cost of the facility via depreciation (up to the agreed capitalized cost cap) based on the expected useful life. The Settling Parties further agree that a depreciation rate of 3.33%, based on the expected thirty (30) year life is appropriate for the Crane Solar Facility, until such time as a new depreciation rate supported by a depreciation study is approved by the Commission in a future proceeding.
10. All Duke Energy Indiana electric customers must receive an allocation of net revenue requirement (net after applicable credits) under the new utility-owned renewable energy generation project rider, in a manner consistent with current allocation of the revenue requirements in Riders 62 and 71. Revenue credits will be provided to customers via Rider No. 71, as described in the testimony of Kent K. Freeman in Cause No. 42061 ECR 15. The revenue credits associated with this new utility-owned renewable energy project rider will be described in Duke Energy Indiana's testimony in the rider proceeding. The Settling Parties further agree that the Company will continue this ratemaking treatment until the Commission determines

this project is used and useful in a proceeding that involves the establishment of the Company's base retail electric rates, or longer if ordered by the Commission.

C. **Procedural Stipulations Regarding the Agreement**

1. The Settling Parties acknowledge that a significant motivation to enter into this Agreement is the expectation that, if the Commission finds this Agreement is reasonable and in the public interest, an order granting the requested CPCN will be granted sooner than would be possible in a fully litigated proceeding, permitting Duke Energy Indiana to begin construction of the Crane Solar Facility within the time originally requested by NSA Crane. The Settling Parties have spent valuable time reviewing data and negotiating this Agreement in an effort to eliminate time consuming and costly litigation. The Settling Parties agree to request that the Commission review the Agreement on an expedited basis and, if it finds the Agreement is reasonable and in the public interest, to approve this Agreement without any material changes by May 25, 2016 (or the last Commission Weekly Conference conducted in May, 2016).
2. The Settling Parties agree to jointly present this Agreement to the Commission for its approval in this proceeding, and agree to assist and cooperate in the preparation and presentation of supplemental testimony as necessary to provide an appropriate factual basis for such approval.
3. If the Agreement is not approved in its entirety by the Commission, the Settling Parties agree that the terms of this Agreement shall not be admissible in evidence or discussed by any party in a subsequent proceeding. Moreover, the concurrence of the Settling Parties with the terms of this Agreement is expressly predicated upon the Commission's approval of the Agreement in its entirety without any material modification or any material condition deemed unacceptable by any Party. If the Commission does not approve the Agreement in its entirety, the Agreement shall be null and void and deemed withdrawn, upon notice in writing by any Settling Party within fifteen (15) business days after the date of the Final Order that any modifications made by the Commission are unacceptable to it. In the event the Agreement is withdrawn, the Settling Parties will request that an Attorneys' Conference be convened to establish a procedural schedule for the continued litigation of this proceeding.
4. The Settling Parties agree that the terms of this Agreement reflect a fair, just and reasonable resolution and compromise for the purpose of settlement under the unique facts presented in this case, and is agreed upon without prejudice to the ability of any Settling Party to propose different terms or conditions in future proceedings. As set forth in the Order in *Re Petition of Richmond Power & Light*, Cause No. 40434, p.

10, the Settling Parties in that case agreed and asked the Commission to incorporate as part of its Final Order confirmation that the Agreement and the Order approving it not be cited as precedent by any person or deemed an admission by any party in any other proceeding except as necessary to enforce its terms before the Commission or a court of competent jurisdiction on these particular issues. This Agreement is solely the result of compromise in the settlement process. Each of the Settling Parties hereto has entered into this Agreement solely to avoid further disputes and litigation with the attendant inconvenience and expense.

5. The Settling Parties stipulate that the evidence of record presented in this Cause constitutes substantial evidence sufficient to support this Agreement and provide an adequate evidentiary basis upon which the Commission can make any findings of fact and conclusions of law necessary for the approval of this Agreement, as filed. The Settling Parties agree to the admission of this Agreement and supporting testimony into the evidentiary record for this proceeding, along with testimony supporting this Agreement, without objection.
6. The issuance of a Final Order by the Commission approving this Agreement without any material modification or further condition not accepted by the Settling Parties shall terminate all proceedings in this Cause.
7. The Settling Parties also will work cooperatively on future news releases or other announcements to the public about this Settlement Agreement. The Settling Parties may respond individually to questions from the public or media, provided such responses are consistent with the Agreement.
8. The undersigneds represent and agree that they are fully authorized to execute this Agreement on behalf of their designated clients, who will be bound thereby.
9. The Settling Parties shall not appeal the agreed Final Order or any subsequent Commission order as to any portion of such order that is specifically implementing, without modification, the provisions of this Agreement, and the Settling Parties shall not support any appeal of a portion of such order by a person not a party to this Agreement.
10. The provisions of this Agreement shall be enforceable by any Settling Party before the Commission or in any court of competent jurisdiction.
11. The communications and discussions during the negotiations and conferences which produced this Agreement have been conducted on the explicit understanding that they are or relate to offers of settlement and are, therefore, privileged.

STIPULATED AND AGREED this 15th day of April, 2016.

[signature pages to follow]

For Duke Energy Indiana, LLC

A handwritten signature in black ink that reads "Melody Birmingham-Byrd". The signature is written in a cursive style with a large initial "M".

Melody Birmingham-Byrd, President
Duke Energy Indiana , LLC

[This is a signature page for the 2016 Duke Energy Indiana Crane Settlement before the Indiana Utility Regulatory Commission (Cause No. 44734). Remainder of page intentionally left blank.]

Joint Stipulation and Settlement Agreement Cause No. 44734

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

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