

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE GAS &)	
ELECTRIC COMPANY AND KENTUCKY UTILITIES)	
COMPANY FOR CERTIFICATES OF PUBLIC)	
CONVENIENCE AND NECESSITY FOR THE)	CASE NO.
CONSTRUCTION OF A COMBINED CYCLE)	2014-00002
COMBUSTION TURBINE AT THE GREEN RIVER)	
GENERATING STATION AND A SOLAR)	
PHOTOVOLTAIC FACILITY AT THE E.W. BROWN)	
GENERATING STATION)	

ORDER

On January 17, 2014, Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") (collectively "Joint Applicants") filed an application, pursuant to KRS 278.020 and 807 KAR 5:001, Sections 14 and 15(2), seeking certificates of public convenience and necessity ("CPCN") for the construction of an approximately 670-megawatt ("MW") net summer rating natural gas combined-cycle combustion facility at KU's Green River Generating Station ("Green River NGCC") in Muhlenberg County, Kentucky, and an approximately 10-MW solar photovoltaic facility at KU's E.W. Brown Generating Station ("Brown Solar Facility") in Mercer County, Kentucky. The projected capital cost for the Green River NGCC is estimated to be \$700 million. The total installed cost of the Brown Solar Facility is estimated to be \$36 million, which is typical of the cost of solar facilities of similar size installed recently. The proposed Brown Solar Facility is projected to be in service by mid-2016, with an annual

capacity factor of approximately 17 percent.¹ Joint Applicants propose an optimal ownership split of the Brown Solar Facility with KU owning 61 percent and LG&E owning 39 percent.² The ownership share was determined based on KU's and LG&E's shares of forecasted load during daylight hours. Joint Applicants contend that the proposed generation facilities are needed due to the retirements of certain coal units at the Green River, Tyrone, and Cane Run generating stations as well as the Joint Applicants' forecasted load.

Pursuant to the Commission's Order of February 6, 2014, a procedural schedule was established providing for two rounds of discovery on the joint application, an opportunity for intervenors to file testimony, discovery on intervenor testimony, and an opportunity for the Joint Applicants to file rebuttal testimony. The following parties were granted intervention in this proceeding: the Attorney General of the Commonwealth of Kentucky ("AG"); Wallace McMullen and Sierra Club (collectively "Sierra Club"); and Kentucky Industrial Utility Customers, Inc. ("KIUC").

After two rounds of discovery were completed on the joint application, the Joint Applicants filed a motion to hold the procedural schedule in abeyance for 90 days to allow Joint Applicants a reasonable period of time to consider the impact of the departure of nine KU municipal wholesale customers on the need for the proposed facilities. The combined load of those departing municipal wholesale customers is

¹ Response of Joint Applicants to Commission Staff's First Request for Information, Item 35.

² The application initially proposed a 64 percent ownership for KU and 36 percent for LG&E; however, these percentages were revised in the Supplemental Testimony of David S. Sinclair.

approximately 325 MW.³ The Commission granted the request and the procedural schedule was held in abeyance.⁴

On August 22, 2014, Joint Applicants submitted formal notice of their intent to withdraw their request for a CPCN to construct the Green River NGCC and their request that the Commission amend the joint application to remove the Green River NGCC and resume the processing of the instant matter for the Brown Solar Facility. On the same date, Joint Applicants filed supplemental testimony supporting the decision to withdraw their CPCN request for the Green River NGCC and to continue with the proposal to construct the Brown Solar Facility. On August 29, 2014, the Commission issued an Order granting Joint Applicants' request to withdraw their request for a CPCN to construct the Green River NGCC, resuming the investigation of the Joint Applicants' request for a CPCN to construct the Brown Solar Facility and establishing a procedural schedule limited to the issue of the Brown Solar Facility.

On October 1, 2014, Joint Applicants, Sierra Club, and KIUC filed a joint motion requesting approval of an Agreement, Stipulation, and Recommendation ("Stipulation") entered into between those parties. The AG was not a signatory to the Stipulation. The parties to the Stipulation recommend that the Commission approve the proposed Brown Solar Facility as requested by the Joint Applicants. Pursuant to the Stipulation, which is attached to this Order as an Appendix, the Joint Applicants agree to use their

³ On April 21, 2014, KU received notices of termination from Barbourville, Bardwell, Berea, Corbin, Falmouth, Frankfort, Madisonville, Paris, and Providence. All of these municipal wholesale customers will terminate service at midnight on April 30, 2019, except for Paris which will terminate on April 30, 2017.

⁴ Pursuant to an Order issued on August 15, 2014, a brief extension of the 90-day abeyance period was granted at the request of Joint Applicants.

competitive bidding process for all significant aspects of the construction of the Brown Solar Facility, including the award of one or more engineering, procurement and construction contracts to qualified contractors and suppliers. The Stipulation also provides that the revenues and expenses associated with the Brown Solar Facility should be treated for ratemaking purposes the same as any other generating resource and that the Joint Applicants would, in future rate proceedings, allocate such revenues and costs associated with the Brown Solar Facility to the various jurisdictional rate schedules consistent with the Joint Applicants' Jurisdictional Separation Study and cost-of-service principles.

A formal evidentiary hearing was conducted on November 24, 2014, at the Commission's offices in Frankfort, Kentucky. Joint Applicants submitted responses to post-hearing requests for information on December 8, 2014. The matter is now before the Commission for a decision. For the reasons stated below, the Commission will approve the Stipulation.

JOINT APPLICANTS' PROPOSAL

Joint Applicants maintain that the Brown Solar Facility is needed to ensure adequate generating capacity and low-cost energy. Joint Applicants assert that the economics and rationale for the Brown Solar Facility are unaffected by the loss of the departing municipal load and the decision not to construct the proposed Green River NGCC. Prior to receiving notice from the municipals, and relying on their 2013 Load Forecast conducted in the summer of 2012, Joint Applicants calculated a combined-

system reserve-margin capacity shortfall of 71 MW beginning in 2016. The deficit, based on a 15 percent reserve margin, would grow to 367 MW in 2020.

To meet the long-term need for capacity and energy, Joint Applicants issued a request for proposals (“RFP”) in September 2012 to 165 potential providers, including marketers, project developers, generation-asset owners, and utilities. The RFP, which did not limit responses to a particular set of fuels or generating technologies, solicited proposals from parties with resources that qualify them as a Designated Network Resource for transmission purposes. The RFP sought offers for firm summer and winter capacity ranging between 1 MW and 700 MW. Joint Applicants reserved the option to procure more or less than 700 MW and could aggregate capacity and energy from multiple parties to meet their needs. Twenty-nine companies responded to the RFP with 72 proposals. The majority of the responses included purchase power agreements from coal, wind, biomass, and solar technologies, and new asset development offers for gas-fired technologies.

Joint Applicants also began developing five self-build alternatives and investigated seven potential new demand-side management (“DSM”) programs. The self-build options included two new NGCC units at Green River (a 1x1 unit and the proposed 2x1 unit), the Brown Solar Facility, and upgrades to existing simple-cycle combustion turbines. The DSM programs considered were: 1) LED lighting for residential electric customers; 2) programmable thermostat rebates for residential electric customers; 3) rebates for new Energy Star qualified exterior doors and windows for residential electric customers; 4) new Energy Star manufactured homes rebates for residential electric customers; 5) behavioral thermostats for residential electric

customers; 6) rebates for commercial electric customers constructing new buildings that qualify for LEED certification; and 7) automated demand-response programs for commercial electric customers.

Joint Applicants conducted a Resource Assessment to evaluate the lowest-reasonable-cost alternative to reliably satisfy their customers' energy needs over a 30-year period. Joint Applicants evaluated the responses to the RFP and the self-build and DSM alternatives over a number of load, natural gas price, and carbon dioxide ("CO₂") price scenarios. Although the Joint Applicants' annual load forecasts contain a Base, High, and Low load scenarios, with alternative forecasts taking into account the probability of low-growth and high-growth cases, the Resource Assessment analysis focused only on the Base and Low load forecasts. The likelihoods of the Base forecast (the 2013 Load Forecast), and the Low load forecast were assumed to be 80 percent and 20 percent, respectively. By not considering a High load forecast, Joint Applicants assert they were being conservative in their analysis of potential resource options, given that any probability for load being greater than the Base-load forecast would favor more capacity sooner. The Resource Assessment utilized Low, Mid, and High natural gas price forecasts based on forecasts from the Energy Information Administration. Lastly, the Resource Assessment assumed a price for each ton of CO₂ emitted, utilizing the "Mid" price forecast prepared by Synapse Energy Economics, which forecasts a CO₂ price of \$23 beginning in 2020 and increasing to \$119 in 2042. The Resource Assessment also considered a "Zero" CO₂ price scenario. The load, natural gas price, and CO₂ price scenarios were combined to produce 12 scenarios for the analysis.

The Resource Assessment analysis was completed in four phases. The Phase 1 screening analysis grouped similar proposals and identified the proposals in each group with the lowest levelized cost. The Phase 2 analysis evaluated the long-term resource proposals and self-build alternatives that passed the Phase 1 screening analysis to determine the best resource for meeting the Joint Applicants' long-term capacity and energy needs. The Phase 2 analysis identified the Green River NGCC as the lowest reasonable cost alternative. The Phase 3 analysis evaluated the robustness of the Green River NGCC alternative against numerous short-term purchase power agreements. The Phase 3 analysis could not identify any purchase power agreement that could cause the addition of the Green River NGCC to be economically deferred beyond 2018. The Phase 4 analysis identified the proposed Brown Solar Facility to result in a small increase in revenue requirements and was the most favorable in the Mid CO₂ and High natural gas price scenarios. Although the Brown Solar Facility is not a lowest reasonable cost resource, absent Renewable Energy Certificate ("REC") prices' being at least \$57/REC, Joint Applicants state that they are proposing to move forward with the project because: (1) it is a prudent hedge against both CO₂ regulations and natural gas price risk; (2) it will reduce the Joint Applicants' CO₂ emissions; (3) it affords the Joint Applicants the opportunity to gain operational experience with an intermittent renewable resource; and (4) it does not materially add revenue requirements over the next 30 years.⁵

⁵ In response to Item 4 of Commission Staff's Third Request for Information, Joint Applicants indicate that the revenue requirement will range from \$2 million to \$3 million for capital and operation and maintenance costs in the early years of the project. The revenue requirement will decrease as the project depreciates.

As previously noted, the Joint Applicants have withdrawn their CPCN request to construct the Green River NGCC due the imminent departure of certain municipal wholesale customers. Based on the Joint Applicants' analysis, removing the departing municipal wholesale customers' load of approximately 325 MW from the 2013 Load Forecast results in a forecast that is very similar to the Low load-forecast scenario. Accordingly, Joint Applicants contend that it is reasonable to utilize the Low load scenario as a basis to evaluate the Green River NGCC and Brown Solar Facility proposals. Under this analysis, the Joint Applicants concluded that construction of the Green River NGCC would result in excess capacity of from 459 MW to 818 MW above the Joint Applicants' lower-end target reserve margin of 15 percent through 2025.⁶ However, the decision to not proceed with the construction of the Green River NGCC would still result in the Joint Applicants' experiencing a reserve margin shortfall of 67 MW, based on a 15 percent reserve margin target, beginning in 2021, even when the loss of the departing municipal wholesale customers' load is taken into consideration.⁷

Joint Applicants maintain the economics of the Brown Solar Facility remain unchanged. Joint Applicants note that the economics of the Brown Solar Facility continue to be based on: (1) the marginal fuel-cost savings of generation it displaces; (2) the ability to capture the investment tax credit by having the facility completed by December 31, 2016; (3) the value of RECs that can be sold in other states; (4) a hedge against an increase in future natural gas prices; and (5) the ability to reduce potential future CO₂ compliance costs. According to the Joint Applicants, neither the loss of load

⁶ Supplemental Testimony of David S. Sinclair, p. 8.

⁷ Response of Joint Applicants to Commission Staff's Third Request for Information, Item 2.b.

of the departing municipal wholesale customers nor the decision to not go forward with the Green River NGCC would have any material impact on the economic justification for the Brown Solar Facility.

FINDINGS

No utility may construct or acquire any facility to be used in providing utility service to the public until it has obtained a CPCN from this Commission.⁸ To obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.⁹

“Need” requires:

[A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated.

[T]he inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.¹⁰

“Wasteful duplication” is defined as “an excess of capacity over need” and “an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.”¹¹ To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a

⁸ KRS 278.020(1).

⁹ *Kentucky Utilities Co. v. Pub. Serv. Comm’n*, 252 S.W.2d 885 (Ky. 1952).

¹⁰ *Id.* at 890.

¹¹ *Id.*

thorough review of all reasonable alternatives has been performed.¹² Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.¹³ All relevant factors must be balanced.¹⁴ The statutory touchstone for ratemaking in Kentucky is the requirement that rates set by the Commission be fair, just and reasonable.¹⁵

Having reviewed the record and being otherwise sufficiently advised, the Commission finds that the Joint Applicants have established a need for the proposed Brown Solar Facility. The evidence provided in the instant case includes a 2013 Load Forecast, adjusted for the departure of the municipal loads, which predicts a 67-MW shortfall commencing in 2021.¹⁶ The Commission finds that the solar facility will reduce the deficiency, is reasonable, and will not result in wasteful duplication of utility facilities.

As previously discussed, an RFP seeking proposals to alleviate projected future deficiencies was prepared and issued. The RFP was not technology specific in the capacity sought, and therefore different load-serving arrangements were offered. The Applicants reviewed the responses and determined that the combination of solar and

¹² Case No. 2005-00142, Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky (Ky. PSC Sept. 8, 2005).

¹³ See *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 390 S.W.2d 168, 175 (Ky. 1965). See also the Final Order in Case No. 2005-00089, Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 138 kV Electric Transmission Line in Rowan County, Kentucky (Ky. PSC Aug. 19, 2005).

¹⁴ Case No. 2005-00089, East Kentucky Power Cooperative, Inc. (Ky. PSC Aug. 19, 2005), Final Order, p. 6.

¹⁵ KRS 278.190(3).

¹⁶ Response of Joint Applicants to Commission Staff's Third Request for Information, Item 2.b.

natural gas facilities were practical in the current regulatory environment. The Commission finds this reasonable.

On July 7, 2014, Joint Applicants accepted the municipals' position terminating their future wholesale contracts. With this load change, Joint Applicants consequently withdrew the Green River 700-MW NGCC plant from the application. Even with the municipal wholesale contracts terminating, Joint Applicants determined that the Brown Solar Facility economics did not change and conditions remained favorable to proceed at this time.

In reviewing the application concerning the Brown Solar Facility, we note that Joint Applicants' decision was arrived at within the context of meeting future demand as probable CO₂ regulation is being debated. Joint Applicants filed the case knowing that the greenhouse gas regulatory environment is highly uncertain in Washington, D.C.¹⁷ Yet, with this uncertainty, Joint Applicants believe that enough is known to include the risk in their analysis of next-generation resources. The Commission agrees and finds that the Joint Applicants' decision to take into consideration potential CO₂ compliance costs is reasonable and prudent. The Commission takes administrative notice that the Kentucky Energy and Environment Cabinet on October 22, 2013, submitted a white paper to the U.S. Environmental Protection Agency ("EPA") setting forth Kentucky's proposed framework for establishing CO₂ emission standards for existing power plants under Section 111(d) of the Clean Air Act.¹⁸ We take further administrative notice that, on June 2, 2014, the EPA issued the Clean Power Plan Proposed Rule to reduce

¹⁷ Application, Sinclair testimony at page 24.

¹⁸ <http://eec.ky.gov/Documents/GHG%20Policy%20Report%20with%20Gina%20McCarthy%20letter.pdf>

carbon pollution from existing power plants. Comments on the proposed rule were due to be filed on December 1, 2014, with a target date of June 2015 for the promulgation of a final rule. On August 1, 2014, the Commonwealth of Kentucky and 12 other states filed lawsuits in the District of Columbia Court of Appeals contesting the EPA's interpretation of the Clean Air Act. On November 26, 2014, Kentucky filed its comments with the EPA concerning the Clean Power Plan Proposed Rule.¹⁹

As noted previously, selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced. For example, the projected \$36 million Brown Solar Facility's cost will, if constructed and operational by December 31, 2016, be offset by a 30 percent investment tax credit. The Commission notes that, due to its small scale, construction of the Brown Solar Facility will have a relatively minor impact on revenue requirements. The Brown Solar Facility further offers a benefit of the marginal fuel-cost savings of generation that it displaces and has the ability to reduce potential future CO₂ compliance costs. A solar facility produces energy based upon available sunlight and operates continuously as light is available. Joint Applicants state that "[m]oving forward with Brown Solar Facility now will afford the Companies an opportunity to gain operational experience with this type of resource should the economics continue to improve and future CO₂ regulations enhance their value to the system."²⁰ The Commission agrees and believes it is appropriate for Joint Applicants to diversify their generation portfolio in light of a likely future carbon-constrained world.

¹⁹ [http://eec.ky.gov/Documents/Ky%20EEC%20111\(d\)%20Comments%20Nov.%2026,%202014.pdf](http://eec.ky.gov/Documents/Ky%20EEC%20111(d)%20Comments%20Nov.%2026,%202014.pdf)

²⁰ Supplemental Testimony of David S. Sinclair, p. 13.

Before the Commission authorizes a CPCN, it must find that there is a need and an absence of wasteful duplication. Further, the proposal must be feasible in terms of its impact on rates. Accordingly, based on the facts in this case, the Commission finds the proposal satisfies the statutory requirements that there is a need, and an absence of wasteful duplication.

IT IS THEREFORE ORDERED that:

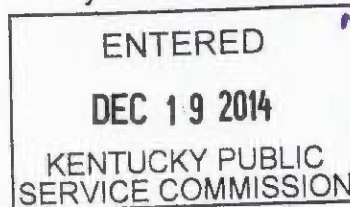
1. The Joint Applicants' request for a CPCN to construct the Brown Solar Facility is granted.

2. The Stipulation filed on October 1, 2014 is approved, including, but not limited to, those provisions of the Stipulation that require:

a. The Joint Applicants to use their competitive bidding process for all significant aspects of construction including the award of one or more engineering, procurement, and construction contracts; and

b. The Joint Applicants, in future rate proceedings, to allocate the revenues and costs associated with the Brown Solar Facility consistent with the Joint Applicants' Jurisdictional Separation Study and cost-of-service principles.

By the Commission



ATTEST:

Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2014-00002 DATED **DEC 19 2014**

AGREEMENT, STIPULATION, AND RECOMMENDATION

This Agreement, Stipulation, and Recommendation (“Agreement”) is entered into this 30th day of September, 2014 by and between Kentucky Utilities Company (“KU”); Louisville Gas and Electric Company (“LG&E”) (collectively, the “Companies”); Kentucky Industrial Utility Customers, Inc. (“KIUC”); and Wallace McMullen and Sierra Club (“Environmental Group”) (collectively, the “Agreeing Intervenors”) in Case No. 2014-00002 before the Kentucky Public Service Commission (“Commission”), which proceedings are the subject of this Agreement as set forth below:

WITNESSETH:

WHEREAS, on January 17, 2014, the Companies filed with the Commission their Joint Application and Testimony In the Matter of: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Certificates of Public Convenience and Necessity for the Construction of a Combined Cycle Combustion Turbine at the Green River Generating Station and a Solar Photovoltaic Facility at the E.W. Brown Generating Station, and the Commission established Case No. 2014-00002 to review the Companies’ Joint Application;

WHEREAS, KIUC filed a petition to intervene in Case No. 2014-00002 and the Commission granted intervention on January 21, 2014;

WHEREAS, the Attorney General for the Commonwealth of Kentucky (“AG”) filed a petition to intervene in Case No. 2014-00002 and the Commission granted intervention on February 2, 2014;

WHEREAS, the Environmental Group filed a petition to intervene in Case No. 2014-00002 and the Commission granted intervention on March 12, 2014;

WHEREAS, the Companies filed on August 22, 2014 a Notice of Withdrawal of their Application for a Certificate of Public Convenience and Necessity (“CPCN”) for the Construction of the Green River Natural Gas Combined Cycle Facility (“Green River NGCC”);

WHEREAS, with their August 22, 2014 Notice of Withdrawal of their request for a CPCN for Green River NGCC, the Companies filed a Motion for Resumption of Case No. 2014-00002 on the remaining request for a CPCN for the construction of an approximately 10 megawatt (“MW”) solar photovoltaic facility at KU’s E.W. Brown Generating Station in Mercer County, Kentucky (“Brown Solar Facility”);

WHEREAS, by Order of August 29, 2014, the Commission approved the Companies’ August 22, 2014 Notice of Withdrawal and the related request to treat the Companies’ January 17, 2014 Joint Application as amended to remove the CPCN request for Green River NGCC and to move forward with the investigation of the CPCN request for the proposed Brown Solar Facility;

WHEREAS, on September 4, 2014, an informal conference for the purpose of reviewing the status of the case and discussing the possible settlement of issues was conducted by representatives of the Agreeing Intervenors, AG, the Commission Staff, and the Companies at the offices of the Commission;

WHEREAS, the Companies and the Agreeing Intervenors hereto desire to stipulate to and make a recommendation on all issues pending before the Commission in Case No. 2014-00002;

WHEREAS, the adoption of this Agreement will reduce the need for the Commission and the parties to expend significant resources litigating these proceedings, and reduce the possibility of, and any need for, rehearing or appeals of the Commission’s final orders herein;

WHEREAS, the Agreeing Intervenors and the Companies agree that this Agreement, viewed in its entirety, is a fair, just, and reasonable resolution of all the issues in Case No. 2014-00002;

WHEREAS, it is understood by the parties hereto that this Agreement is subject to the approval of the Commission insofar as it constitutes an agreement by some of the parties to the proceedings; and

WHEREAS, it is the position of the parties hereto that this Agreement is supported by sufficient and adequate data and information, and the recommendation herein should be followed by the Commission.

NOW, THEREFORE, for and in consideration of the promises and conditions set forth herein, the parties hereto stipulate and agree as follows:

1. The parties to this Agreement recommend the Commission approve the Companies' Joint Application as amended by the Companies August 22, 2014 Notice of Withdrawal and the Commission's August 29, 2014 Order and grant the relief requested in the amended Joint Application, namely, the issuance of a CPCN for the construction of the Brown Solar Facility at the E.W. Brown Generating Station in Mercer County, Kentucky, by entering all necessary orders on or before December 15, 2014, and approving the Joint Application, as amended, in its entirety.

2. Each party waives all cross-examination of the other parties' witnesses unless the Commission disapproves this Agreement, and each party further stipulates and recommends that the Joint Application, testimony, pleadings, and responses to data requests filed in this proceeding be admitted into the record. The parties stipulate that after the date of this Agreement they will not otherwise contest the Companies' proposals in the hearing of the above-referenced

proceedings regarding the subject matter of the Agreement, and that they will refrain from cross-examination of the Companies' witnesses during the hearing, except insofar as such cross-examination is in support of the Agreement.

3. The signatories hereto agree that the Companies shall use their competitive bidding process for all significant aspects of the construction of Brown Solar Facility including the award of one or more engineering, procurement and construction contracts to qualified contractors and suppliers.

4. The signatories hereto agree that the revenues and expenses associated with the Brown Solar Facility should be treated for ratemaking purposes the same as any other generating resource. In future rate proceedings, the Companies will allocate the revenues and expenses associated with the Brown Solar Facility to the various jurisdictional rate schedules consistent with the Companies' Jurisdictional Separation Study and cost-of-service principles.

5. On June 2, 2014, the Environmental Protection Agency ("EPA") issued a proposed rule to regulate carbon dioxide emissions from electric generating units under Section 111(d) of the Clean Air Act. It is anticipated that the Brown Solar Facility will help the State of Kentucky meet its requirements under the proposed rule. Kentucky's State Implementation Plan ("SIP") under the proposed rule is currently required to be submitted to EPA in June 2016.

6. The signatories hereto agree that making this Agreement shall not be deemed in any respect to constitute an admission by any party hereto that any computation, formula, allegation, assertion, or contention made by any other party in these proceedings is true or valid.

7. The signatories hereto agree that the foregoing stipulations and agreements represent a fair, just, and reasonable resolution of the issues addressed herein and request the Commission to approve the Agreement.

8. The signatories hereto agree that, following the execution of this Agreement, the signatories shall cause the Agreement to be filed with the Commission by September 30, 2014, together with a request to the Commission for consideration and approval of this Agreement.

9. The signatories hereto agree that this Agreement is subject to the acceptance of and approval by the Commission. The signatories hereto further agree to act in good faith and to use their best efforts to recommend to the Commission that this Agreement be accepted and approved.

10. The signatories hereto agree that if the Commission does not completely accept and approve this Agreement in its entirety and without any conditions, then: (a) this Agreement shall be void and withdrawn by the parties hereto from further consideration by the Commission and none of the parties shall be bound by any of the provisions herein, provided that no party is precluded from advocating any position contained in this Agreement; and (b) neither the terms of this Agreement nor any matters raised during the negotiations shall be binding on any of the signatories to this Agreement or be construed against any of the signatories.

11. If the Commission issues an order adopting this Agreement in its entirety and without additional conditions, each of the parties agrees that it shall file neither an application for rehearing with the Commission, nor an appeal to the Franklin Circuit Court with respect to such order.

12. The signatories hereto agree that this Agreement shall inure to the benefit of, and be binding upon, the parties hereto and their successors and assigns.

13. The signatories hereto agree that this Agreement constitutes the complete agreement and understanding among the parties hereto, and any and all oral statements,

representations, or agreements made prior hereto or contemporaneously herewith shall be null and void and shall be deemed to have been merged into this Agreement.

14. The signatories hereto agree that, for the purpose of this Agreement only, the terms of the Agreement are based upon the independent analysis of the parties to reflect a fair, just, and reasonable resolution of the issues herein and are the product of compromise and negotiation.


15. The signatories hereto agree that neither the Agreement nor any of the terms shall be admissible in any court or commission except insofar as such court or commission is addressing litigation or an administrative action arising out of the implementation of the terms herein or the approval of this Agreement. This Agreement shall not have any precedential value in this or any other jurisdiction.

16. The signatories hereto warrant that they have informed, advised, and consulted with the respective parties hereto in regard to the contents and significance of this Agreement and, based upon the foregoing, are authorized to execute this Agreement on behalf of the parties hereto.

17. The signatories hereto agree that this Agreement is a product of negotiation among all parties hereto, and no provision of this Agreement shall be strictly construed in favor of or against any party.

18. The signatories hereto agree that this Agreement may be executed in multiple counterparts.

IN WITNESS WHEREOF, the parties have hereunto affixed their signatures:

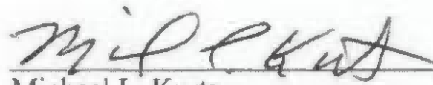


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