

January 30, 2017

Skill. Integrity. Efficiency.

RECEIVED

JAN 31 2017

PUBLIC SERVICE COMMISSION

VIA FEDERAL EXPRESS

Dr. Talina R. Mathews Executive Director Public Service Commission 211 Sower Boulevard, P.O. Box 615 Frankfort, Kentucky 40602-0615

Re: In the Matter of Application of Big Rivers Electric

Corporation for an Order Declaring the Construction

of Seven Solar Power Facilities to be Ordinary

Extensions of Existing Systems in the Usual Course

of Business, Case No. 2016-00409

Dear Dr. Mathews:

Enclosed for filing on behalf of Big Rivers Electric Corporation ("Big Rivers") are an original and ten copies of: (i) Big Rivers' responses to the Public Service Commission Staff's Initial Request for Information; and (ii) a petition for confidential treatment. I certify that on this date, a copy of this letter, a copy of the responses, and a copy of the petition were served on all parties of record by first class mail.

Sincerely,

Til

Tyson Kamuf

Counsel for Big Rivers Electric Corporation

TAK/abg

Enclosures

cc: DeAnna Speed

Dennis L. Cannon

Marty Littrel

Jeffrey Hohn

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-00409

VERIFICATION

I, Russell L. (Russ) Pogue, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Russell L. (Russ) Pogue

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Russell L. (Russ) Pogue on this the 26 day of January, 2017.

Notary Public, Kentucky State at Large

My Commission Expires



APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-00409

VERIFICATION

I, Roger D. Hickman, verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

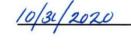
Roger D. Hickman

COMMONWEALTH OF KENTUCKY)
COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Roger D. Hickman on this the day of January, 2017.

Notary Public, Kentucky State at Large

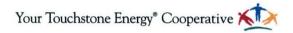
My Commission Expires





ORIGINAL





COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

APPLICATION)	
OF BIG RIVERS ELECTRIC CORPORATION)	
FOR AN ORDER DECLARING THE)	C N-
CONSTRUCTION OF SEVEN SOLAR POWER)	Case No.
FACILITIES TO BE ORDINARY EXTENSIONS)	2016-00409
OF EXISTING SYSTEMS IN THE USUAL)	
COURSE OF BUSINESS)	

Responses to Commission Staff's Request for Information dated
January 13, 2017

FILED:

January 31, 2017

ORIGINAL

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 1)	Refer to the Application, paragraph 7, which states, "There
2	will be a to	otal of approximately 360 panels, each with a capacity of about
3	300 to 350	watts (dc)." Also refer to the diagrams in the Application,
4	Exhibit D.	Confirm that Big Rivers is planning to install only panels that
5	are 315 wa	tts, as shown in Exhibit D.
6		
7	Response)	Yes, Big Rivers is planning to install panels rated at 315 watts (dc).
8		
9		
10	Witness)	Russell L. Pogue
11		

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

I	Item 2)	Refer to the Application, paragraph 8, regarding the land
2	leases for	each of the seven solar facilities ("Solar Facilities"). Also refer
3	to the D	irect Testimony of Russell L. Pogue ("Pogue Testimony"),
4	regarding	descriptions of the property at each proposed facility.
5		
6	a.	Provide the site selection criteria Big Rivers considered for the
7		Solar Facilities.
8	b.	Provide the status of the lease for each of the seven sites,
9		stating whether the lease has been executed. For leases that
10		have been executed, provide a copy of the executed land lease.
11		
12	Response)	
13	a.	Big Rivers asked its Member Cooperatives to nominate their own
14		currently owned sites or to work with local government authorities
15		within their respective service areas to select public sites with
16		visibility and access.
17	b.	All of the lease agreements are in the final stages of negotiation, and
18		none of the leases has been executed at this time. Big Rivers will
19		provide the leases once they are executed.
20		
21		
22	Witness)	Russell L. Pogue

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 3)	Refer to the Application, paragraph 10.
2		
3	a.	Provide an update to the status of Big Rivers' application for a
4		Rural Energy for America Program grant. If a decision has
5		not been made, provide a date for when a decision is expected.
6	b.	Explain whether the proposed project will continue if Big
7		Rivers does not receive the grant.
8		
9	Response)	
10	a.	The Rural Energy for America Program ("REAP") funds renewable
11		energy and energy efficiency projects. The REAP grant pays 25% of
12		the total costs for installation of approved projects. Big Rivers'
13		application is approximately 60% complete. The remaining elements
14		to be completed are listed below.
15		
16		i. A Feasibility Study is a required component for renewable
17		energy projects over \$200,000 in total costs. Big Rivers has
18		retained an engineer with previous Feasibility Study
19		experience.
20		ii. A Technical Report will combine information provided in the
21		Feasibility Study with the vendor proposal, equipment used,

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1		and environmental benefits together to describe the complete
2		project.
3		iii. The last steps are final assembly of all required grant
4		components and submittal of the grant application to the
5		United States Department of Agriculture ("USDA") before the
6		March 31, 2017, deadline for 2017 fiscal year funding.
7		
8		The REAP grant application is still in development and has yet to be
9		submitted. Once filed, there is no deadline for a USDA decision to
10		award the grant request.
11	b.	Should the USDA deny the REAP grant application, Big Rivers
12		would reevaluate whether to proceed with the project.
13		
14		
15	Witness)	Russell L. Pogue
16		

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

January 31, 2017

1	Item 4) Refer to the Application, paragraph 10. Explain in detail how
2	Big Rivers determined that the proposed Solar Facilities will not result in
3	any increased charges to Big Rivers' Members.
4	
5	Response) From the initial conversations among Big Rivers and its Members,
6	Big Rivers agreed to underwrite the initial costs of the Solar Facilities and the
7	REAP grant will reduce these costs even further. Big Rivers' REAP grant
8	application is mentioned in Item 3 of these responses. There is currently no
9	intention to pass these initial costs along to Big Rivers' Members.
10	Once operational, Big Rivers will meter and deliver the energy
11	produced by the solar arrays to the distribution facilities of its Members. The
12	energy will be billed to the Members Cooperatives under Big Rivers' Standard
13	Rate Schedule - Rural Delivery Service ("the RDS Tariff") currently on file with
14	the Commission. That energy will replace energy that Big Rivers would have
15	otherwise provided from other sources.
16	
17	
18	Witnesses) Russell L. Pogue and
19	Roger D. Hickman
20	

Case No. 2016-00409
Response to PSC 1-4
Witnesses: Russell L. Pogue and
Roger D. Hickman
Page 1 of 1

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 5)	Refer to the Application, paragraph 11.
2		
3	a.	Provide any questions or inquiries from either Big Rivers'
4		Members or Members' end-use customers concerning solar
5		projects.
6	b.	Provide any educational materials that will be available to
7		retail customer and members of the public.
8		
9	Response)	
10	a.	The inquiries referenced in the Application, paragraph 11 involved
11		questions about how solar works, interconnection, safety, costs, and
12		availability of utility-scale or community solar. The answers to many
13		of these questions will be readily available once the solar arrays are
14		complete, and can be viewed by the Members' customer and the
15		general public.
16	b.	Big Rivers is in the initial stages of developing informational
17		websites that describe the Solar Facility sites and the components of
18		photovoltaic generation. Please see Big Rivers' response to Item 9 of
19		these information requests.
20		
21	Witness)	Russell L. Pogue

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 6)	Refer to the Application, paragraph 13.
2		
3	a.	Big Rivers states that its Members will decide how to offer the
4		power to their retail customers. Explain the options Big
5		Rivers' Members have in offering the power to their retail
6		customers.
7	b.	If Big Rivers' Members choose to offer the solar power to their
8		retail customers, explain how the Members will know how
9		much energy was generated by the solar panels if it is not
10		separately shown on the bill from Big Rivers.
11	c.	Explain how the energy produced by the solar panels will be
12		allocated to Big Rivers' Members.
13		
14	Response)	
15	a.	Big Rivers will provide the energy from the Solar Facilities to its
16		Members under Big Rivers' RDS Tariff. The Members may then
17		provide the energy to their retail members under any of their
18		applicable rate structures including the Member Cooperatives'
19		respective renewable energy service riders.
20	b.	Big Rivers will meter the energy produced at each solar array. The
21		amount of that metered energy will appear on each Member's
22		respective monthly billing. That information will be available

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1		publically through the webpages described in Big Rivers' response to
2		Item 9 of these information requests.
3	c.	Energy will be allocated to the Member Cooperatives based on
4		metered production of each solar array interconnected with the
5		individual cooperative distribution system. So, for example, Meade
6		County Rural Electric Cooperative Corporation's monthly billing for
7		rural delivery will include the metered energy from the solar arrays
8		in Brandenburg, Kentucky, and in Hardinsburg, Kentucky. The
9		metered energy from these locations would not appear on the other
10		Members' monthly bills.
11		
12		
13	Witness)	Russell L. Pogue
14		

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 7)	Refer to the Application, paragraph 25. Provide the basis for
2	the estima	sted \$500 annual cost of operation for each array.
3		
4	Response	As part of its proposal, Harvest Energy Solutions has offered Big
5	Rivers an a	annual O&M agreement for all seven arrays at a cost of \$2,450 per year.
6	This O&M	plus estimated insurance and taxes for the installations brings the
7	annual cos	ts to about \$3,500, or about \$500 per site.
8		
9		
10	Witness)	Russell L. Pogue
11		

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

I	Item 8)	Refer to the Pogue Testimony, page 6, lines 4-13.
2		
3	a.	Explain in detail why Big Rivers decided to sell the power
4		generated by the proposed project under its existing Standard
5		Rate Schedule - Rural Delivery Service, rather than a special
6		tariff or the Standard Rate Schedule - Large Industrial
7		Customer.
8	b.	Provide a comparison of the estimated cost per kilowatt-hour
9		for the proposed solar facilities and the existing Standard
10		Rate Schedule - Rural Delivery Service.
11		
12	Response)	
13	a.	As stated in paragraph 11 of Big Rivers' application, Big Rivers and
14		its Members primarily developed these Solar Facilities to serve as
15		education and demonstration projects. As such, they will allow Big
16		Rivers, its Members, the Members' retail customers, students
17		attending Livingston County Middle School and McCracken County
18		High School, and the general public to increase their knowledge and
19		understanding of solar power facilities. Moreover, as noted on pages
20		6-7 of Mr. Pogue's Direct Testimony, these Solar Facilities will show

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

January 31, 2017

the various components of solar arrays and how they operate to produce and deliver electricity.

As currently designed by Harvest Energy in conjunction with Big Rivers and its Members, each of these Solar Facilities will directly interconnect with each Member's respective distribution system. As such, they differ from the higher voltage interconnections generally used to serve those customers served under Standard Rate Schedule – Large Industrial Customer ("the LIC Tariff"). Big Rivers and its Members currently serve 21 customers under Big Rivers' LIC Tariff. Most of these customers' monthly energy usage ranges from a few hundred thousand kWhs to a few million kWhs.

Finally, the inquiries Big Rivers and its Members have received about solar have been overwhelmingly from retail customers served by Big Rivers' RDS Tariff. Given the distribution level interconnection for the solar arrays, the kWh energy expected from these arrays versus the kWh usage by industrial customers, and the primary inquiries from non-industrial retail customers, Big Rivers elected to sell this power under its RDS Tariff.

b. Based upon a twenty-five (25) year, projected analysis of the generation from, and the costs related to, the seven (7) solar facilities,

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1		the average cost per kWh estimate is \$0.285947.1 Using the year one
2		projected kW demand and kWh generation for those facilities, and
3		applying the existing RDS Tariff kW and kWh factors, plus
4		additional billing factors for the Fuel Adjustment Clause ("FAC"),
5		Environmental Surcharge ("ES"), and the Non-FAC PPA, yields a
6		projected year one kWh charge of \$ 0.075904.2
7		
8		
9		
10		
11	Witnesses)	Russell L. Pogue (b. only) and
12		Roger D. Hickman (a. only)
13		

¹ Using currently projected initial project costs of \$427,303 (excluding any REAP grant), projected 25-year kWh sales of 3,857,635 and total projected 25-year cost of \$1,103,077.83, which includes \$491,002.60 depreciation, \$400,860.33 interest, \$145,414.90 O&M per contract, and \$65,800.00 replacement/upgrade cost (inverters and meters) and contract renewal.

 $[\]frac{\$1,103,.077.83}{3,857,635 \text{ kWhs}} = \0.285947 per kWh

 $^{^2}$ Using projected year-one demand of 271 kWs and year-one energy of 165,704 kWhs. Applies RDS Tariff demand charge of \$13.8050 per kW and energy charge of \$0.045000 per kWh. Additionally, applies August 2016 billing month factors - FAC = \$0.000141 per kWh; ES = 10.442367%, and Non-FAC PPA = \$0.001009 per kWh.

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 9) Refer to the Pogue Testimony, page 6, line 17, through page 7,
2	line 4. Provide a screen shot of the on-line information that can be viewed
3	by a customer or a student.
4	
5	Response) Big Rivers is in the initial phase of developing the Web pages. These
6	Web pages will discuss components of solar generators, operation of solar
7	generation, and actual production of each array using the lotus energy L-Gate 120
8	Solar Monitoring System. Information on the L-Gate Monitoring System is
9	available at:
10	http://locusenergy.com/solutions/residential
11	
12	
13	Witness) Russell L. Pogue
14	

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 10)	Refer to the Pogue Testimony, page 8, lines 1- 10.
2		
3	a.	Explain in detail the process Big Rivers used to select the
4		vendor to construct the project.
5	b.	Provide a list of bidders and a copy of any report prepared in
6		order to evaluate and select the vendor.
7		
8	Response)	
9	a.	Attached is the evaluation methodology, published as part of the
10		RFP, used to select the winning proposal. Four contractors were
11		initially invited to bid. These invitations were based on
12		recommendations from Generation and Transmission cooperatives in
13		the region and solar vendors' experience designing and installing
14		systems in the area.
15		Each vendor interested in submitting a proposal was required
16		to attend pre-bid site visits to each selected site. Ultimately, three
17		proposals were received by Big Rivers.
18	b.	Attached is a REDACTED award recommendation for the project
19		with the list of vendors who bid the project. Pursuant to its
20		Corporate Purchasing Guidelines and Corporate Purchasing Policy,
21		Big Rivers is providing the UNREDACTED award recommendation
22		with a Petition for Confidential Treatment.

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

January 31, 2017

1
2
3 Witness) Russell L. Pogue
4

- 2.12. The evaluation methodology that will be used to identify the winning bid includes, but is not limited to the following four elements: the Non-Responsiveness Test, the Price Evaluation, Qualification/Certification Evaluation, and the Technical Evaluation. The purpose of each element and the process employed in each are described in the following sections.
 - 2.12.1. Non-Responsiveness Evaluation: The Non-Responsiveness Evaluation is designed to identify and eliminate any proposal that has not provided the requested information in a proper format to allow an equitable evaluation to occur or that does not meet the requirements set forth in this RFQ. A bid deemed non-responsive by Big Rivers may be rejected. Bidders are subject to disqualification for such things as failure to submit the proposal on or before the designated time and date. Big Rivers Electric Corporation may, in its discretion, disqualify a bid and drop it from further consideration for failure to submit a complete proposal in the form required or failure to provide additional supporting documentation or any clarification that may be requested by Big Rivers subsequent to the submission of the proposal.
 - 2.12.2. Price Evaluation: The Price Evaluation is designed to identify and eliminate bids which are clearly more expensive than other compliant proposals received. This will be accomplished by ranking the bids, as well as the designated options, against each other according to price. Preliminary estimates of production cost effects, operation and maintenance costs, and other pertinent costs will be made and added to each proposal for evaluation purposes. The evaluation will also include an estimate of the negative impact of deviations or exceptions, if any, to the terms and conditions in the proposed Contract or in other agreements contemplated to be entered into. Big Rivers expects the bid to contain an early payment discount structure which terms will also be part of the evaluation.
 - 2.12.3. Qualification/Certification Evaluation: The Qualification/Certification Evaluation is designed to identify and eliminate bids that clearly demonstrate a lack of understanding or an inability to meet the intended Specification for this project. Big Rivers Electric Corporation requires all on-site contractors to complete the Contractor Certification process before any on-site work is awarded. Therefore, a winning Bidder will, among other things, submit or confirm on file the completed and fully executed General Services Agreement, and safety rules, and will agree that all site workers will be in compliance with the CSCAP Program and any site specific safety requirements which will apply to all work.
 - 2.12.4. Technical Evaluation: The Technical Evaluation will consist of a comprehensive review that considers a number of price and non-price factors. The goal of the Technical Evaluation is to determine the options that best meet the needs of Big Rivers for this project and technical options which improve the facility's overall cost, reliability and availability. Some of the technical concerns include the following criteria:
 - Execution Plan and Project Team: Ability to meet Schedule, Provide relevant resources
 - b) Bidder's experience with similar sized systems (please provide examples and references)
 - c) Solar Panel Maintenance and Reliability History
 - d) Length and Securitization of Warranty/Guarantees
 - e) Life Cycle Costs, including maintenance requirements



Your Touchstone Energy® Cooperative

AWARD RECOMMENDATION

Date: October 28, 2016

To: File

From: Rob Toerne

RE: Photovoltaic Solar Arrays to be Located at Member-Owner Determined

Properties - Request for Proposal #16014

Therefore, this Award Recommendation seeks approval to issue a purchase order to provide and install photovoltaic solar generation demonstration systems at locations determined by the Member Owners.

Discussion of Bid Evaluation

Request for Proposal #16014 was issued to three proven solar photovoltaic contractors. The specification defined locations, minimum equipment requirement, operational characteristics, and installation parameters of solar arrays at seven locations ranging from 10 kW to 30 kW. All proposals where thoroughly evaluated. Each of the bidders proposed systems and services that met the specification with minimal and non-material expectations or clarifications. Levelized costs for each of the bidder's proposals are summarized in the table below:

Harvest Energy

Harvest Energy, as the low bidder, was further studied by Big Rivers and National Renewable Cooperative Organization (NRCO) staff for compliance to the specification, comparison to other cooperative solar projects around the country. Additionally, discussions were held with Harvest Energy to understand, clarify, and negotiate any expectations taken to the specification. All clarifications have been determined to be non-financial and of minimal risk to the project.

Page 1 of 2

Purchase Order Award Recommendation for #16014

Award Recommendation

Supplier: Harvest Energy

Scope of Award: Provide Photovoltaic Solar Arrays as per Big Rivers' Request for

Proposal #16014 and Harvest ES's September 23, 2016 proposal as clarified by an October 13, 2016 email to Rob Toerne and Russ

Pogue.

Value of Award:

(Additional options or changes may add cost should any of the individual Member Cooperatives select any customizations such as specific paint schemes, signage, site specific underlayment, or structural modifications based on the geo-tech surveys.)

RFQ Background: Bids were requested from the following suppliers:

a. Harvest Energy

The project is based on the lowest evaluated bid and is within budget and plan.

Approval

In accordance with the Corporate Policies and Procedures, please indicate your agreement with the Award Recommendation by signing below and return the fully executed document Robert Toerne.

Rob Toerne, Director Supply Chain

Russ Pogue, Marager, Member Relations

Mark Facret, VP Energy Services

Page 2 of 2

Purchase Order Award Recommendation for #16014

Big Rivers Electric Corporation

Purchase Order Award Recommendation for #16014

Component	Harvest
Base Price Arrays	
Geo-Tech Survey	
Performance Bond	
Permitting Cost	
PE Stamp	
Other Cost (Met. Station)	
Total	

^{*} Requested bidder to provide the cost for a KY PE stamp as per spec. Bidder remained silent on requirement.

Case No. 2016-00409 Attachment for PSC 1-10b Witness: Russell L. Pogue

Page 3 of 3

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 11)	Refer to the Pogue Testimony, page 8, lines 8- 10.
2		
3	a.	Confirm that the final contract with Harvest Energy Solutions
4		has not been executed.
5	b.	Confirm that the contract will be not executed unless and
6		until the Commission approves.
7		
8	Response)	
9	a.	The final contract with Harvest Energy Solutions has not been
10		executed.
11	b.	A final contract with Harvest Energy Solutions will not be executed
12		unless and until the Commission issues an Order either granting a
13		certificate of public convenience and necessity ("CPCN") for the
14		projects, or declaring that the projects are extensions in the normal
15		course of business and, therefore, require no CPCN.
16		
17		
18	Witness)	Russell L. Pogue
19		

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 12)	Refer to page 9, lines 1-7. Provide the total capacity of the
2	solar arra	ys in MW in alternating current after inverter losses.
3		
4	Response)	The maximum output capacity from the combined seven solar arrays
5	is .0984 MV	V in alternating current after inverter losses.
6		
7		
8	Witness)	Russell L. Pogue
9		

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 13) Provide any estimates or studies that support the 4-6 month
2	timetable for construction of the Solar Facilities.
3	
4	Response) Attached hereto are the individual timelines for the seven solar array
5	sites in the proposal provided by Harvest Energy Solutions. The timelines may
6	compress as weather permits. An additional eight weeks was added to the
7	proposed schedule to allow for material acquisition and site preparation following
8	the issuance of the Commission's Order.
9	
10	
11	Witness) Russell L. Pogue
12	

McCracken County High School Site

Construction Day: 2 - 16

- Site Layout
- Foundation Construction
- Racking Construction
- Panel Installation
- Wire installation
- Installing Electrical Components
- Trench & lay conduit to interconnection point
- Fence Installation

Mike Miller Park Site (Benton, KY)

Construction Day: 18 - 32

- Site Layout
- Foundation Construction
- Racking Construction
- Panel Installation
- Wire installation
- Installing Electrical Components
- Trench & lay conduit to interconnection point

Livingston County Middle School Site

Construction Day: 33 - 47

- Site Layout
- Foundation Construction
- Racking Construction
- Panel Installation
- Wire installation
- Installing Electrical Components
- Trench & lay conduit to interconnection point

Kenergy's Hendeson Office Site

Construction Day: 48 - 62

- Site Layout
- Foundation Construction
- Racking Construction
- Panel Installation
- Wire installation
- Installing Electrical Components
- Trench & lay conduit to interconnection point

Kenergy's Owensboro Office Site

Construction Day: 63 - 77

- Site Layout
- Foundation Construction
- Racking Construction
- Panel Installation
- Wire installation
- Installing Electrical Components
- Trench & lay conduit to interconnection point

Meade County RECC's Hardinsburg Office Site

Construction Day: 78 - 92

- Site Layout
- Foundation Construction
- Racking Construction
- Panel Installation
- Wire installation
- Installing Electrical Components
- Trench & lay conduit to interconnection point
- Install Guard Rail / Bollards

Meade County RECC's Brandenburg Office Site

Construction Day: 93 - 107

- Site Layout
- Foundation Construction
- Racking Construction
- Panel Installation
- Wire installation
- Installing Electrical Components
- Trench & lay conduit to interconnection point

Construction Days: TBD

- Interconnections Will be performed by utility and scheduled when they are ready.
- System Check System will be checked for completion (100% operational) at the time of interconnection.

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR AN ORDER DECLARING THE CONSTRUCTION OF SEVEN SOLAR POWER FACILITIES TO BE ORDINARY EXTENSIONS OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS CASE NO. 2016-002409

Response to Commission Staff's Request for Information dated January 13, 2017

1	Item 14)	If notice of the locations of the proposed Solar facilities was	
2	provided to persons who own property in close proximity to or adjacent to		
3	the proposed sites, describe the notice and provide a copy if the notice was		
4	written.		
5			
6	a.	If any meetings were held with property owners, provide a list	
7		of attendees and meeting notes.	
8	b.	Provide a copy of public comments, if any, that Big Rivers has	
9		received regarding the proposed project.	
10			
11	Response)	No notice was provided to persons who own property in close	
12	proximity to	, or adjacent to, the proposed sites because of the minimal size of each	
13	facility's footprint.		
14			
15	a.	No meetings were held with owners of property in proximity to the	
16		proposed sites.	
17	b.	Since there have been no public meetings, Big Rivers has received no	
18		public-meeting comments regarding the proposed project.	
19			
20			
21	Witness)	Russell L. Pogue	