BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

IN RE: APPLICATION OF 1803 ELECTRIC COOPERATIVE, INC. FOR APPROVAL OF POWER PURCHASE AGREEMENTS AND FOR COST RECOVERY	))))	DOCKET NO. U-_____

DIRECT TESTIMONY

OF

ERIC P. LAVERTY

ON BEHALF OF

1803 ELECTRIC COOPERATIVE, INC.

PUBLIC VERSION

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I. INTRODUCTION AND BACKGROUND

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION.

A. My name is Eric P. Laverty and my business address is 4140 West 99th, Carmel, IN 46032. My current position is Vice President of Regulatory and Reliability Services, Alliance for Cooperative Energy Services Power Marketing LLC ("ACES").

Q. HOW LONG HAVE YOU HELD THE POSITION OF VICE PRESIDENT OF REGULATORY & RELIABILITY SERVICES AT ACES?

A. I have held my current position since October 2020.

Q. WHAT ARE YOUR RESPONSIBILITIES AND DUTIES AS THE VICE PRESIDENT OF REGULATORY & RELIABILITY SERVICES AT ACES?

A. My areas of responsibilities and duties includes leading the groups that support ACES' clients in areas of Regional Transmission Organization ("RTO") and Independent System Operator ("ISO") policies and practices, including transmission planning, RTO/ISO transmission cost allocation, North American Electric Reliability Corporation ("NERC") Standard development and compliance with NERC standards.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received Bachelor of Science and Master of Science degrees in Electrical Engineering from Michigan Technological University in 1996 and 1997, respectfully. In 2017, I received a Master of Business Administration degree from the Lacy School of Business at Butler University.

Q. WHAT PROFESSIONAL CERTIFICATIONS DO YOU HOLD?

A. I hold the designation of Professional Engineer (Electrical), with registrations in Michigan and Indiana.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY PUBLIC UTILITY REGULATORY COMMISSIONS?

A. Yes. I have previously testified before Minnesota Public Utility Commission and the Federal Energy Regulatory Commission ("FERC").

Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

A. I have been in the energy industry for over 23 years. Prior to my current position, I have held the position of Executive Director of Transmission Services and Director of Transmission Services at ACES.

Prior to joining ACES in April 2017, I spent more than 15 years at the Midcontinent Independent System Operator, Inc. ("MISO") in leadership roles in transmission planning & engineering, information technology services and compliance functions, and business operations functions in the planning division.

Prior to joining MISO, I spent over four years at Detroit Edison in transmission planning and smart grid research and development.

II. PURPOSE & SUMMARY OF DIRECT TESTIMONY

Q. ON WHOSE BEHALF ARE YOU TESTFYING?

A. I am testifying before the Louisiana Public Utility Commission ("Commission" or "LPSC") on behalf of 1803 Electric Cooperative, Inc. ("1803"), a member-owned electric cooperative consisting of five (5) member electric cooperatives ("Member Cooperatives"):

1. Beauregard Electric Cooperative, Inc.
2. Claiborne Electric Cooperative, Inc.
3. Northeast Louisiana Power Cooperative, Inc.
4. South Louisiana Electric Cooperative Association
5. Washington-St. Tammany Electric Cooperative, Inc.

The Member Cooperatives have formed 1803 to combine their power needs and to seek power supply opportunities to fulfill the power needs for the Member Cooperatives upon the completion of current full-requirements wholesale power supply contracts in 2025.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. In its Application, 1803 requests that the Commission issue a decision, supported by the evidence, that 1803's Request for Proposals ("RFP"), and resultant power supply plan in accordance with established Commission processes is compliant with applicable Commission Orders and established RFP processes, and is prudent and is in the public interest.

ACES assisted 1803 in administering its RFP and power supply portfolio selection. The Direct Testimonies of Jason M. Painter, Kevin P. Suhanic, Derek D. Waite, and Patrick J. McGuire on behalf of 1803 address, in greater detail, ACES' assistance to 1803 with regard to the establishment of a power supply plan, pending Commission approval, for when 1803's current full-requirements wholesale power supply contracts expire in 2025.

My Direct Testimony addresses ACES support to 1803's Application to the Commission in the following areas:

1. In section III, as part of an overall assessment of power supply resource offers, attributes, and other criteria defined by 1803's Board of Directors ("Board") in 1803's RFP, I discuss how ACES evaluated and assessed each RFP respondent's transmission and MISO generation interconnection arrangements.

2. In section IV, relative to the projects selected by 1803 for its power supply portfolio, I discuss how 1803's selected portfolio would be integrated into MISO markets.

3. Finally, in section V, I discuss how 1803's selected supply portfolio will ensure that 1803, as a MISO Load Serving Entity ("LSE"), is compliant with MISO resource adequacy rules. I will also address how 1803's portfolio would be compliant with a proposal pending in the MISO stakeholder process at the MISO Resource Adequacy Subcommittee.

III. REVIEW OF RFP RESPONSES' TRANSMISSION & GENERATION INTERCONNECTION ARRANGEMENTS

Q. WHAT FACTORS DID ACES EVALUATE AND WEIGH IN ASSESSING RESPONSES SUBMITTED IN 1803'S RFP?

A. 1803's Board comprised of the General Managers of each for the five (5) Member Cooperatives and a Member Cooperative representative, independently defined and identified the following ten RFP criteria expressed in order of relative importance, to meet 1803's power supply goals:

1. Reliably serving load at the lowest reasonable cost;

2. Minimize the Potential volatility and market risk associated with 1803's rates;

3. Minimize cost Exposure to future environmental regulations and unknown environmental mitigation and/or clean-up costs;

4. Minimize Exposure to future cost increases passed through to 1803;

5. 1803 prefers fixed price contracts over cost based contracts;

6. 1803 prefers a longer-term contract length, all else being equal;

7. Desirable Counterparty creditworthiness;

8. Desired contract terms (outlined in Appendix E of the RFP);

9. Renewable generation attributes; and

10. The location of resources near load or in the same MISO Zone 9 and the state of Louisiana[1]

ACES did not influence in any way 1803's Board selection criteria or rank ordering, which was independently developed by 1803's Board.

Q. DID ACES EVALUATE THE PROPOSED MISO INTERCONNECTION ARRANGEMENTS OF EACH RFP SUPPLY RESOURCE SUBMITTED?

A. Yes, at 1803's directive, pursuant to the above criteria, and in particular items 4, 9, and 10, as part of a comprehensive list of criteria, ACES reviewed the location and generation interconnection agreements and attributes of new resources (either proposed or under development) submitted in RFP responses.

Q. WHY DID ACES, FOR 1803, REVIEW THE TRANSMISSION & INTERCONNECTION ARRANGEMENTS OF THE SUBMITTED ROJECTS?

A. There are two (2) reasons that ACES reviewed the transmission and interconnection arrangements of the submitted projects. First, the ten (10) RFP criteria developed by 1803's Board, as noted and listed above, require review of power supply interconnection features.

Second, given the significant percentage of MISO generation interconnection queue projects that failed to reach commercial fruition, it was incumbent on 1803, and

[1] Please see 1803's long-term RFP at pages 34-35: https://aces-wpengine.netdna-ssl.com/wp-content/uploads/2020/02/FINAL-1803-Informational-Filing-Containing-Final-2019-Request-for-Proposals-for-Long-Term-Capacity-and-Energy-Resources.pdf (last accessed February 14, 2021).

ACES, as 1803's RFP Administrator to review the attributes and characteristics of power supply proposals and projects submitted in response to 1803's RFP.

Q. HOW DID ACES REVIEW THE TRANSMISSION & INTERCONNECTION ARRANGEMENTS OF THE PROPOSED POWER SUPPLY PROJECTS?

A. In RFP analysis Phase 1, as part of ACES' 1803 Team review of project components, I examined the transmission and interconnection arrangements (defined below) of 21 submitted projects. In RFP Phase 2, I evaluated seven (7) resources, one (1) combustion turbine, one (1) Combined Cycle Gas Turbine ("CCGT") and five (5) solar resource facilities.

In both RFP phases, I evaluated project exposure to MISO transmission upgrade costs in the MISO generation interconnection process, interconnection statuses, and location for the submitted power supply proposals.

The following factors were considered in evaluating submitted projects' transmission and interconnection arrangements:

- Interconnection Facilities: facilities required to connect to the MISO wholesale grid. These are necessary irrespective of any other project in the queue or any load level.

- Energy Resource Interconnection Service ("ERIS") Upgrades: Requirements to fund system enhancements beyond the connection point but necessary to deliver the full output of the generator onto the grid irrespective of the buyer. It is conceivable that these upgrades change as projects drop out of the queue, but MISO's threshold to assign an ERIS Upgrade is quite high and somewhat insulates the upgrade from future changes. These upgrades tend to be in very close proximity to the generator's point of interconnection.

- Network Resource Interconnection Service ("NRIS") Upgrades: Requirements for upgrades to make a generator fully deliverable to the MISO System. These are highly dependent on other projects in the queue and do change considerably as the other projects drop out.

- For reasons described above, the farther along in the queue, they are the better.

For projects with a Generator Interconnection Agreement ("GIA"), or already in service, ACES evaluated resources' network upgrade values as fixed. For remaining projects, to the extent such projects were further along in the queue, then more certainty was assigned to network upgrade cost estimates associated with the project.

Q. WHAT DID YOU REVIEW WITH REGARD TO THE POWER SUPPLY PROJECTS SUBMITTED IN RFP RESPONSES?

A. I reviewed the characteristics of power supply projects submitted in RFP responses via a focus on the following status of the projects:

- *Existing, deliverable resources*: Existing, deliverable resources provide the most certainty with respect to transmission costs. Existing resources have been through the interconnection process and are actually interconnected to the grid, with no uncertainty as to network upgrade costs.

- *Generators with MISO interconnection agreements*[2]*, with NRIS, but not yet constructed:* The next best option are generators not yet operational but through the interconnection process. Such generators also have their transmission issues mostly established, as MISO's interconnection agreements list out the transmission requirements and what contingencies could change those transmission requirements.

- *Generators in the MISO interconnection queue seeking NRIS, but farther along in the process with lower upgrade costs:* MISO uses a three-phase interconnection process, with requirements to move from one phase to another becoming more and more costly to the generator. Also, MISO reports that 80-90% of the queued generation will drop out of the queue. Thus, early stage results are heavily influenced by projects that will eventually drop out. Therefore, generation in the queue, but in the third, or even late in the second phase have more certainty and clarity around their upgrade responsibility and timeline to achieve commercial operation.

[2] New MISO Generation Interconnection Requests are processed in accordance with rules specified in the MISO Tariff, Attachment X3. https://www.misoenergy.org/api/documents/getbyname/Attachment%20X.pdf (last accessed February 14, 2021). A generation interconnection request must have a Point of Interconnection on the MISO Transmission System to be processed through the MISO Generation Interconnection Queue.

From 1803's Board RFP selection criteria addressed in the Direct Testimonies of Jason M. Painter and Derek D. Waite, 1803 has a preference for generators closer to its Member Cooperative' load versus supply resources elsewhere in MISO.

The reason for this preference is that the closer the resource is to the load, the lower the overall risk of either congestion in the energy market or price separation (different price between load and supply resources) on the capacity side. While the risk of a dropout early in the interconnection queue is high, after interconnection agreements are established the risk of queue dropout decreases significantly.

Q. WHAT IS THE DIFFERENCE BETWEEN ERIS AND NRIS?

A. FERC Order No. 2003 defines ERIS as follows:

> Energy Resource Interconnection Service would allow the Interconnection Customer to connect its Generating Facility to the Transmission System and be eligible to deliver its output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis.
>
> ***
>
> The Interconnection Studies to be performed for Energy Resource Interconnection Service would identify the Interconnection Facilities required as well as the Network Upgrades needed to allow the proposed Generating Facility to operate at full output. In addition, the Interconnection Studies would identify the maximum allowed output of the Generating Facility without Network Upgrades.[3]

Order No. 2003 describes NRIS as follows:

> Network Resource Interconnection Service provides for all of the Network Upgrades that would be needed to allow the Interconnection Customer to designate its Generating Facility as a Network Resource and obtain Network Integration Transmission Service. Thus, once an Interconnection Customer has obtained Network Resource Interconnection Service, any future transmission service request for delivery from the Generating Facility would not require additional studies or Network Upgrades. However, Network Resource Interconnection Service itself does not convey any delivery service and the Interconnection Customer would not be required to identify a specific buyer (or sink). If the Interconnection Customer

[3] Order No. 2003 at para 753.

wishes to obtain the delivery component of transmission service, it would have to do so pursuant to the Transmission Provider's Tariff.[4]

Q. HOW DOES AN NRIS INTERCONNECTION ARRANGEMENT, RELATIVE TO AN ERIS INTERCONNECTION ARRANGEMENT, IMPACT THE RESOURCE ADEQUACY ATTRIBUTES OF A RESOURCE?

A. In order to demonstrate the deliverability requirements in the Resource Adequacy construct, MISO's Tariff requires, among other things, that a Capacity Resource must have: (1) NRIS; or (2) ERIS with firm transmission service.[5] Firm transmission service can either be Network Integration Transmission Service ("NITS") (i.e., a Network Resource designation to serve a designated Network Load) or firm Point-to-Point Transmission Service.

Q. WHY IS A GENERATOR SEEKING AN NRIS INTERCONNECTION SERVICE ARRANGEMENT PREFERRED OVER A GENERATOR SEEKING AN ERIS INTERCONNECTION?

A. Pursuant to the discussion above regarding Order No. 2003, an NRIS arrangement provides a more robust interconnection to the transmission network than ERIS does.

Specifically, as described above in the different factors considered, upgrades required for an ERIS connection are very local to the point of interconnection and leaves the generator exposed for curtailment and congestion from system conditions farther out from the plant. On the other hand, generating resources with NRIS arrangements have potential transmission upgrades farther out in the system reviewed and assigned, if needed.

[4] *Id.* at para 756.
[5] MISO Tariff, Module E-1, Section 69A.3.1.g.

This more robust interconnection allows for operation over a greater number of stressed but foreseeable conditions, lowering the operational risk to the generator.

Q. DOES AN NRIS INTERCONNECTION ARRANGEMENT, RELATIVE TO AN ERIS INTERCONNECTION ARRANGEMENT, OFFER 1803 MORE CERTAINTY?

A. Yes. For reasons noted above, a generating resource with a NRIS interconnection arrangement is commercially advantageous for an LSE such as 1803 to contract with.

IV. REVIEW OF MISO INTEGRATION PROCESSES FOR 1803'S RESOURCE PORTFOLIO AND LOAD

Q. WHAT ARE 1803'S SELECTED PORTFOLIO OF POWER SUPPLY RESOURCES?

A. Figure 1 below indicates 1803's selected power supply portfolio for the MISO 2025/2026 Planning Year ("PY").

Figure 1: 1803's Proposed MISO Capacity Position

Assuming: Current MISO Solar Accreditation Rules

PY 2025/2026	MISO Zone	MW
MISO Capacity Requirement (PRMR MW):	9	915.0
1803 Capacity Resources (UCAP MW):		
[redacted]		
% of Zone 9 Resources Contracted For:		**97%**
Future DER/DR/EE Resources (ZRC Basis):	9	27.7
Total 1803 MISO Capacity Resources (ZRCs):		915.0
Additional Resources:		
[redacted]		
Total Resources		1,100.0

[6] 1803's solar resource PPAs consist of three (3) projects in Louisiana: A 98 MW project in Morehouse Parish, Louisiana (Bayou Galion project), a 95 MW project near Baldwin in St. Mary Parish, Louisiana (Bayou Teche project), and a 150 MW project in Evangeline Parish, Louisiana (Bayou Chicot project).

Q. 1803's SELECTED PORTFOLIO CONTAINS 343 MW OF SOLAR GENERATING CAPACITY. CAN YOU SPEAK TO HOW MISO IS PREPARED TO INTEGRATE SOLAR GENERATION IN ITS MARKET?

A MISO has over 15 years of experience operating its system with solar and other intermittent generation resources, such as wind, with nearly 20 years of experience planning the system for inverter-based generation. In recent years, MISO has integrated over 22,000 MW of wind turbines into their system.

Today, MISO is currently preparing for significant buildout of its MISO solar generation integration within its various regions, in particular, in the MISO South region where 1803's load is located.[7] The long-range scenarios in MISO's transmission planning document, "MTEP 20",[8] assess the addition of large additions of solar generation, particularly in the MISO South region. Indeed, the current MISO generation interconnection queue has 56,560 MW of active solar projects.[9] Using the queue performance level that MISO provides, this means that between 5,600 and 11,200 MW of these solar facilities will eventually be constructed, or equal to about 25% to 50% of the amount of wind already in MISO. Similar to a wind facility, solar facilities use power electronics to convert DC power to AC power and inject it into the system. Neither technology is as controllable as a gas or coal plant, but both are predictable over the short-term horizon. The addition of solar generation in MISO does not present a new technological nor market driven problem for MISO.

[7] https://cdn.misoenergy.org/2021%20Wind%20&%20Solar%20Capacity%20Credit%20Report503411.pdf (last accessed February 14, 2021).
[8] https://www.misoenergy.org/planning/planning/mtep20/ (last accessed February 15, 2021).
[9] https://www.misoenergy.org/planning/generator-interconnection/GI_Queue/gi-interactive-queue/, sorted for solar projects and status (last accessed February 15, 2021).

Q. PLEASE CONTINUE WITH YOUR DISCUSSION OF MISO'S INTEGRATION OF INTERMITTENT AND SOLAR RESOURCES.

A. Yes. As renewable resources supply increasing amounts of MISO energy, MISO has recognized that its system becomes more dependent on remaining conventional generators, due to the variable output of renewable resources.

MISO recently published a report, the "Renewable Integration Impact Assessment" ("RIIA"). The MISO RIIA report notes that as MISO's "renewable energy penetration increases, so does the variety and magnitude of the bulk electric system need and risks. Managing the system under such conditions, particularly beyond the 30% system-wide renewable level is not insurmountable and will require transformational change in planning, markets, and operations."[10]

1803's portfolio includes a [redacted] (ICAP summer rating) [redacted] capacity resource. This resource is dispatchable over a range of 240 MW to 709 MW, providing responsiveness and flexibility to MISO. 1803's portfolio is positioned contribute to the solutions needed for the changes and challenges that MISO's RIIA notes.

Thus, it is reasonable to believe that 1803's solar generation supply resources would be successfully integrated into the MISO transmission system and operate in a reliable manner.

Q. TURNING TO THE TOPIC OF THE INTEGRATION OF 1803 INTO MISO, HOW WILL 1803 OBTAIN MISO NETWORK INTEGRATION TRANSMISSION SERVICE?

[10] https://cdn.misoenergy.org/RIIA%20Summary%20Report520051.pdf (last accessed February 17, 2021) at page 2.

A. The task of transitioning and assigning MISO NITS to 1803 should be relatively straightforward. 1803's load is currently reflected in MISO system studies under the existing transmission companies; 1803's peak load is already accounted for in MISO study processes and therefore, 1803's NITS transmission rights are covered and protected.

Thus, 1803 should have little difficulty obtaining NITS contracts for the 1803 load, and since 1803's load is already included in MISO's and relevant Transmission Owner's planning studies, it is unlikely that MISO will require a NITS study.

1803's selected generation resources will be designated as Designated Network Resources ("DNR") under the NITS contract. Of these resources, some are existing, deliverable resources while others are in development and may be required to fund network upgrades to ensure those new resources are deliverable to MISO load.

Signing up these new DNRs under a NITS contract with 1803 is essentially no different from what happens today.

The current LSE is performing the same functions under their current NITS contract. Functionally, all that will change is "who" performs the relevant steps vs. "which" steps are performed.

Q. WILL THE ADDITION OF 1803'S POWER SUPPLY PORTFOLIO AND NETWORK SERVICE ARRANGEMENTS ADVERSELY IMPACT RELIABILITY?

A. Generally, 1803's load and resource portfolio will be changing the contractual relationship around the existing load and generation on the MISO system. The load of 1803's Member Cooperatives, Beauregard Electric Cooperative, Claiborne Electric Cooperative, Northeast Louisiana Power Cooperative, South Louisiana Electric Cooperative Association and Washington-St. Tammany Electric Cooperative and certain of the generation in 1803's

power supply plan are currently in existence and are therefore part of MISO's planning process. Accordingly, MISO, and MISO South Region entities including Entergy and CLECO, routinely study MISO South Region transmission system reliability. As warranted by applicable planning standards, the relevant transmission owner, in collaboration with MISO, proposes and develop upgrades, when necessary, to maintain a reliable system.

As to resources in 1803's power supply portfolio under development, and in the MISO generation interconnection queue, these resources are subject to MISO's and the applicable MISO South Region entities' collaborative analysis and evaluation, in particular, with regards to investment in network upgrades to ensure deliverability to load.

V. 1803'S APPLICATION & COMPLIANCE WITH MISO RESOURCE ADEQAUCY RULES

Q. PLEASE DESCRIBE WHY 1803'S POWER SUPPLY PORTFOLIO IS CHANGING.

A. Due to the completion, in early 2025, of the existing full-requirements wholesale power supply contracts of 1803's Member Cooperatives, 1803 has secured approximately 900 MW of MISO capacity resources, including a reserve margin. Below, I describe in additional detail the structure of the MISO resource adequacy rules and how 1803's power supply portfolio positions 1803 to be "resource adequate", and assists the reliability posture of the MISO South region and Louisiana in particular.

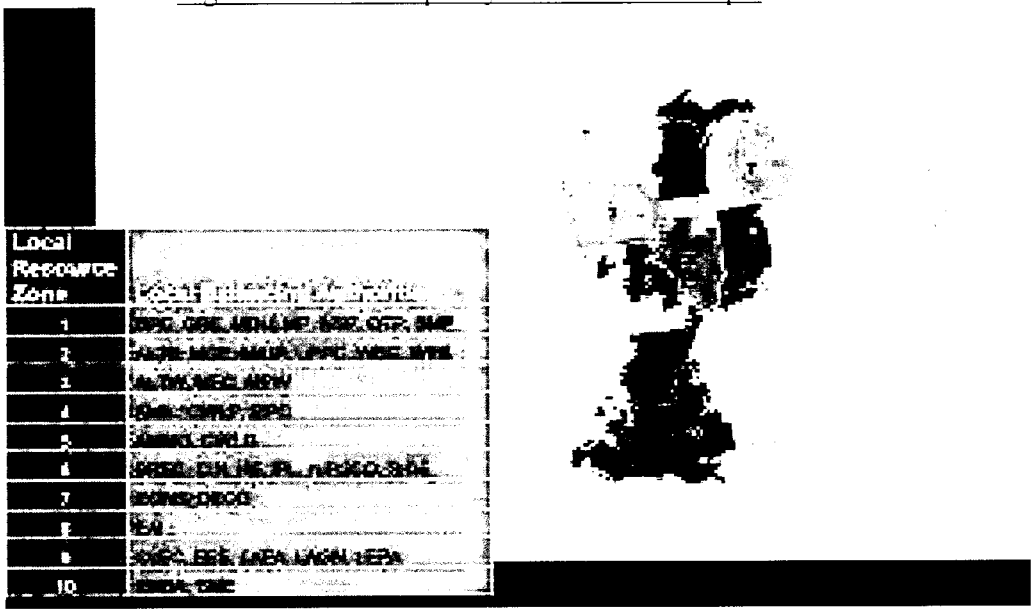
Q. CAN YOU SUMMARIZE MISO'S RESOURCE ADEQUACY RULES?

A. Yes. Generally speaking, resource adequacy refers to the ability of available generation and other resources to reliably serve electricity demand when needed across a range of

stressed but reasonably foreseeable conditions. The following map (Figure 2) shows the MISO Local Resource Zone ("LRZs" or "Zones") boundaries.

MISO defines LRZs or Zones to reflect state boundaries and to reflect a need for adequate resources to be located within its region. MISO's resource adequacy rules can be organized into two categories, rules for the load entity, or LSE side of the resource adequacy ledger and the resource, or supply side.

Figure 2: MISO Capacity Market Zonal Map[11]



Q. CAN YOU SUMMARIZE MISO's RESOURCE ADEQUACY RULES FOR LSE?

A. Yes. MISO's resource adequacy rules establish that LSEs must procure, or prove that they already possess, sufficient resources to meet their coincident peak load forecast, plus a reserve margin, for the relevant PY.[12]

[11] Source: MISO.
[12] MISO uses a "Planning Year" ("PY") calendar for administering its markets. A MISO PY runs from June 1 to the following May 31, The 1st relevant full PY for 1803's resource portfolio, as indicated in Figure 1, is the MISO 2025/2026 PY.

MISO's resource adequacy rules establish requirements for demonstrating the level of resources required for each LSE to reliably serve forecasted coincident MISO peak demand, based upon a Loss of Load Expectation standard. Along with the peak load, MISO's Planning Reserve Margin ("PRM") is used to determine how much capacity, expressed as a Planning Reserve Margin Requirement ("PRMR") that MISO must plan for. Specifically, the PRM is used to ensure that sufficient capacity, beyond forecasted peak loads, are available to address the following variables and drivers of generator unavailability:

- generator planned maintenance;
- unplanned or forced outages of generating equipment;
- deratings in the capability of generation resources and demand response resources;
- system effects due to reasonably anticipated variations in weather; and
- load forecast uncertainty.[13]

By procuring resources to meet this margin above peak load expectations, MISO seeks to ensure that its region has sufficient resources to meet peak demand and to account for contingencies.[14] Note also that in the MISO real-time market, resources committed in MISO's capacity market have an obligation to be available to meet real-time MISO demand and contingencies.

Q. CAN YOU SUMMARIZE MISO'S RESOURCE ADEQUACY RULES FOR THE SUPPLY OR RESOURCE SIDE?

[13] MISO Business Practices Manual for Resource Adequacy at section 2.
[14] MISO Business Practices Manual for Resource Adequacy at section 3.1: https://cdn.misoenergy.org//BPM%20011%20-%20Resource%20Adequacy110405.zip (last accessed February 14, 2021).

A. Yes. On the supply side, resources used to achieve long-term Resource Adequacy are called "Planning Resources". MISO planning resources consist of electrical generating units, known as Generation Resources, External Resources, Storage resources, Demand Response ("DR") resources, Load Modifying Resources (including Behind-the-Meter Generation and DR which are available during capacity and transmission Emergencies declared by MISO), and Energy Efficiency Resources.[15]

Q. PLEASE CONTINUE. HOW DOES MISO COMPUTE THE "UCAP VALUE" OF GENERATNG RESOURCES, INCLUDING INTERMITTENT RESOURCES?

A. MISO currently calculates the amount of capacity that a resource may qualify for in its capacity market through calculation of an Unforced Capacity ("UCAP") value for each resource. The UCAP value of MISO capacity resource value reflects a resource's operating characteristics.

For thermal generating resources, such as gas and coal resources, MISO computes a resource's forced outage rate based on the outages and performance of the resource.

For Intermittent Capacity Resources such as wind generation resources, MISO determines a resource's capacity value through MISO's Effective Load Carrying Capability ("ELCC") study. For solar resources, beyond a 50% capacity credit,[16] after the

[15] 1803's selected portfolio consists substantively of Generation Resources, and in the future, DR and or Energy Efficiency and/or Distributed Energy resources and as such, my Direct Testimony is focused on the rules related to physical Generation Resources and not DR, EE or storage resources.

[16] Solar PV resources that are new, upgraded or returning from extended outages shall submit all operating data for the prior summer with a minimum of 30 consecutive days, in order to have their capacity registered with MISO. Resources with less than 30 days of metered values would receive the class average of 50% for its Initial Planning Year. Refer to Appendix V for additional examples and determination of Convertible UCAP using the Deliverability Adjusted Capacity Factor. Please see: MISO BPM for Resource Adequacy at 4.2.3.3.2.

first three (3) years of operation, MISO uses hourly daily peaks[17] during the summer months to determine the UCAP value of solar resources.

Resources participating in the PRA may convert Capacity to Zonal Resource Credits ("ZRCs") up to the Resource's UCAP value and the capacity credit for intermittent resources, and offer such ZRCs into the MISO capacity market.[18]

Q. WILL THE POWER SUPPLY PORTFOLIO LISTED IN FIGURE 1 ENSURE THAT 1803 WILL ADHERE TO MISO RESOURCE ADQEQUCY RULES?

A. Yes. I first wish to note that MISO's capacity market rules do not require that an LSE "source" generation and capacity, from the MISO Zone in which the LSE is located. Moreover, MISO rules do not dictate that an LSE must own capacity; in fact, an LSE could purchase its capacity from the MISO capacity market.

However, as 1803's RFP and portfolio illustrates, 1803 adheres to sound utility resource planning principles, and has developed a responsible and well-planned portfolio of power supply resources to serve its Member Cooperative's load in 2025 and beyond.

The selected resources listed in Figure 1 above will be entirely located in the MISO South region, with the vast majority of resources located in MISO Zone 9[19], a region encompassing the State of Louisiana and MISO regions of east Texas in Figure 2 below. This degree of resources obtained from MISO Zone 9 is consistent with recent and

[17] Solar photovoltaic (PV) resources will have their annual Total UCAP value determined based on the 3-year historical average output (with curtailments added to the actual output) of the resource for hours ending 15, 16, and 17 EST for the most recent Summer months (June, July, and August). *Id.*

[18] A ZRC holder can also technically sell the ZRC bilaterally, or submit the ZRC through a MISO Fixed Resource Adequacy Plan.

[19] 1803's 36.4 MW (nameplate) SWPA entitlement is an external MISO resource that is currently tagged to the Entergy/CLECO systems for transmission.

expected MISO PRA local clearing requirement ("LCR") percentages.[20] As such, 1803's power supply portfolio will substantially contribute to MISO reliability due to their location within the MISO South region, and, in particular MISO Zone 9.

Q. IS MISO PLANNING TO USE THE ELCC METHOD TO DETERMINE THE CAPACITY VALUE OF MISO SOLAR GENERATING RESOURCES?

A. It is possible that MISO will use the ELCC approach to establish the capacity value of solar resources in the near future. Were MISO to adopt an ELCC method to establish the value of solar resources, 1803's solar resource would potentially receive less capacity market credit than the 68% credit value estimated in Figure 1 above. ACES estimates a 46% capacity credit for 1803's solar resources under a solar ELCC approach, with 1803 remaining resource adequate nonetheless. Figure 3, below, illustrates that 1803's portfolio assuming an ELCC method to compute the value of capacity for MISO solar.

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[20] Current local clearing requirement percentage for Zone 9 are approximately 96%. See https://cdn.misoenergy.org/2020-2021%20PRA%20Results442333.pdf (last accessed on February 18, 2021) at slide 7, for zone 9 (dividing 20,893.70 MW into 21,711.7 MW).

Figure 3: 1803's MISO Capacity Position under MISO ELCC		
Assuming: MISO Adopts ELCC Solar Accreditation Rules		
PY 2025/2026	MISO Zone	MW
MISO Capacity Requirement (PRMR MW):	9	915.0
1803 Capacity Resources (UCAP MW):		
[redacted]		
% of Zone 9 Resources Contracted For:		**89%**
Future DER/DR/EE Resources (ZRC Basis):	9	26.7
Total 1803 MISO Capacity Resources (ZRCs):		103.2
Additional Resources:		
[redacted]		
Total Resources		1,100.0

Q. DOES 1803'S PROPOSED POWER SUPPLY PORTFOLIO CONTRIBUTE TO MISO SOUTH REGION RESOURCE ADEQUACY?

A. As I discuss above, 1803's selected portfolio of resources will be MISO Capacity Resources. A core component of 1803's power supply portfolio, [redacted] and near Entergy's critical areas for transmission planning.

Importantly, [redacted] resource, as planned, would be electrically proximate to the MISO load pocket known as [redacted]

The [redacted] is planned to be interconnected to MISO wholesale markets at a [redacted]

Q. WOULD 1803'S RESOURCE PORTFOLIO COMPLY WITH CERTAIN PROPOSALS PENDING AT THE MISO RESOURCE ADEQUACY SUBCOMMITTEE ("RASC")?

A. Yes. Pending at the MISO RASC is a stakeholder proposal to require an LSE to secure 50% of its PRMR, prior to each MISO capacity market auction.[21] The proposal also requires that the LSE's MISO PRA capacity be located in the same MISO zone the LSE is located.

As I discuss above, as part of a well-balanced power supply portfolio, 1803 has adequate supply resources, all of which will be located in the MISO South region and, in terms of compliance with the proposal, the vast majority will be located in MISO Zone 9. Accordingly, should the pending RASC proposal be filed by MISO at FERC and approved, 1803 would be compliant with the "50% rule" in the RASC proposal.

VI. CONCLUSION

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

[21] MISO RASC, January 6, 2021, at slide 19: https://cdn.misoenergy.org/20210106%20RASC%20Item%2003b%20Reliability%20Requirements%20&%20Sub-Annual%20Construct%20(RASC010,%20011,%20012)508757.pdf (last accessed February 15, 2021).

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

APPLICATION OF 1803 ELECTRIC COOPERATIVE, INC. FOR APPROVAL OF POWER PURCHASE AGREEMENTS AND FOR COST RECOVERY	))))	**DOCKET NO. _____**

AFFIDAVIT OF WITNESS

I, Eric P. Laverty, being duly sworn, depose

that the Direct Testimony in the

above referenced matter on behalf of

1803 Electric Cooperative, Inc.

are true and correct to the best of my knowledge, information and belief.

E. P. Laverty

Eric P. Laverty

Subscribed and sworn before
me this 15th day of
March, 2021.

Notary Public

Name of Notary and Notary/Bar Roll No.:

Official Seal
Beth A. Burrows
Marion County
Commission Expire 8/24/2024
Commission # 587277

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

IN RE: APPLICATION OF 1803 ELECTRIC COOPERATIVE, INC. FOR APPROVAL OF POWER PURCHASE AGREEMENTS AND FOR COST RECOVERY	))))	DOCKET NO. U-_____

DIRECT TESTIMONY

OF

DEREK D. WAITE

ON BEHALF OF

1803 ELECTRIC COOPERATIVE, INC.

PUBLIC VERSION

MARCH 17, 2021

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Exhibit DDW-7: Physical Heat Rate Call Option Confirmation Letter between Calpine Energy Services, L.P. and 1803 Electric Cooperative, Inc. effective as of March 11, 2021.

I. INTRODUCTION AND BACKGROUND

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION.

A. My name is Derek D. Waite, my business address is 4140 West 99th Street, Carmel, Indiana 46032. My current position is Director of Origination at Alliance for Cooperative Energy Services Power Marketing LLC ("ACES").

Q. HOW LONG HAVE YOU HELD THE POSITION OF DIRECTOR OF ORIGINATION AT ACES?

A. I have held my current position since December of 2016.

Q. WHAT ARE YOUR RESPONSIBILITIES AND DUTIES AS THE DIRECTOR OF ORIGINATION AT ACES?

A. In this role, I am responsible for providing ACES' owners ("Members") and customers (collectively, "Clients") with commercial wholesale electricity market opportunities for long-term risk solutions, structured products, and renewable transactions. The Requests for Proposals ("RFP") process is the utility industry standard and most common method to solicit and achieve these results. I lead ACES' services related to RFPs.

Q. WHAT PROFESSIONAL CERTIFICATIONS DO YOU HOLD?

A. I hold the Series 3 certification administered by the Financial Industry Regulatory Authority for the Natural Futures Association.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I have a Bachelor of Science degree from the University of Illinois at Urbana-Champaign and a Master of Science degree from the University of Wyoming.

Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

A. I have over twenty years of energy industry experience and have worked in different roles at various companies, I have extensive experience in commercial commodity markets involving physical and financial energy, energy derivatives, and renewable products. I joined ACES in February of 2014. Prior to my role as the Director of Origination at ACES, I was a Director of Customer Service. I have a diverse background in origination, mid-marketing, portfolio management, trading, and hedging in various retail and wholesale power markets.

I began my career in 1996 as a Commodities Merchandiser for ConAgra Trade Group. In 2000, I joined Aquila as a Power Trader and then moved on to Kansas City Power & Light in 2002.

In 2004, I joined Ameren Energy Marketing ("AEM") where I was part of the team responsible for the creation of the AEM merchant trade floor. At AEM, I had a variety of responsibilities including Term Trader, Senior Sales Executive, Supervisor of Retail Portfolios, Portfolio Manager for AEM's non-asset load serving strategy, and Program Manager for Homefield Energy, AEM's aggregate residential load serving division.

II. PURPOSE & SUMMARY OF DIRECT TESTIMONY

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying before the Louisiana Public Service Commission ("Commission" or "LPSC") on behalf of 1803 Electric Cooperative, Inc. ("1803"), a member-owned electric cooperative consisting of five (5) member electric cooperatives ("Member Cooperatives"):

1. Beauregard Electric Cooperative, Inc.
2. Claiborne Electric Cooperative, Inc.

3. Northeast Louisiana Power Cooperative, Inc.
4. South Louisiana Electric Cooperative Association
5. Washington-St. Tammany Electric Cooperative, Inc.

The Member Cooperatives have formed 1803 to combine their power needs and to seek power supply opportunities to fulfill the power needs for the Member Cooperatives upon the completion of current full-requirements wholesale power supply contracts in 2025.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. My Testimony will address the RFP Process and the Power Purchase Agreement ("PPA") Evaluation Team within the RFP and information related to the facilities of the PPA and the details of the PPAs.

III. BACKGROUND ON 1803 RFP and FINAL RFP

Q. PLEASE BREIFLY DESCRIBE THE PROCESS OF CREATING AND ISSUING 1803'S RFP.

A. In early 2019, 1803 and ACES drafted the RFP in conjunction with the LPSC's Market Based Mechanism Order, and in consultation with LPSC Staff and the LPSC's consultant, based on 1803's power supply needs. 1803 announced the RFP process via a regulatory filing on June 25, 2019. It then took much of 2019 to refine the RFP to meet 1803's regulatory and business needs, and to seek full input from LPSC Staff and the LPSC consultant, and to implement recommendations received. On November 26, 2019, 1803 filed with the LPSC a filing containing the 2019 RFP for long- term capacity and energy resources. This November 2019 filing effectively issued the draft RFP on behalf of 1803.

Q. PLEASE BRIEFLY DESCRIBE THE TECHNICAL AND BIDDERS' CONFERENCE, ITS PURPOSE AND RESULTING RFP CHANGES.

A. The Technical and Bidders' Conference, conducted on January 16, 2020, was an in person and virtual opportunity for potential Bidders to the RFP to ask questions or seek clarification on the RFP. 1803 and ACES received feedback from Bidders and LPSC Staff and the LPSC's consultant, and then 1803 revised the RFP, continued the LPSC Staff consultation, and issued and filed its Final RFP on Feb 14, 2020. On February 14, 2020, the final RFP was also posted on the RFP website.[1]

Q. PLEASE PROVIDE A HIGH-LEVEL OVERVIEW OF WHAT CHANGED IN THE RFP FROM NOVEMBER 2019 TO FEBRUARY 2020.

A. 1803 further clarified their intent to acquire the majority of their power supply over the 2025-2044 time period and nearly 100% of firm energy and generation capacity sources in the first five (5) years (2025-2029). Section 2 was expanded to include further detail and rationale as to why 1803 needed to conduct this RFP. Finally, Section 4 was updated to provide more detail on the RFP Administrator's role and more details were added to the process to evaluate and analyze proposals through the two-phase approach.

Q. PLEASE PROVIDE ANY RELEVANT TIMING UPDATES TO THE RFP PROCESS.

A. From February 14 - 19, 2020, all questions and answers were posted to the 1803 public RFP website. On March 4, 2020, the Phase 1 proposal deadline was extended to Friday April 3, 2020 at 5:00 p.m., so that all prospective Bidders that wanted to and did execute the Confidentiality Agreement, RFP Appendix C, could review the Confidential

[1] https://www.acespower.com/1803ltrfp2019/ (last accessed 2/27/21).

Information to better support their Phase 1 bids. On March 20, 2020, 1803 extended the Phase 1 proposal deadline again to Friday April 17, 2020 at 5:00 p.m. due to the unprecedented stay at home orders related to the novel Coronavirus ("Covid-19").

Q. PLEASE CONTINUE.

A. Additionally, 1803 announced they would provide an updated 1803 load forecast by March 27, 2020.

On April 15, 2020, based upon significant feedback from Bidders due to the ongoing global pandemic related to Covid-19, 1803 again extended the Phase 1 deadline to Friday May 29, 2020 at 5:00 p.m. and Bidder registration reopened to close on May 1, 2020 at 5:00 p.m. to ensure everyone had the opportunity to register as a Bidder and submit a Phase 1 Bid. On May 29, 2020 1803's updated schedule to the RFP was posted to their website.[2]

On September 9, 2020, the Process Control Team notified the Bidders as to whether they progressed to Phase 2 from Phase 1. On September 18, 2020, 1803 revised the Phase 2 submission timeline based on feedback from the LPSC and the Bidders. The Phase 2 bid submittal timeline was updated from September 23, 2020 to October 16, 2020.

IV. PPA EVALUATION TEAM

Q. WHAT IS THE PPA EVALUATION TEAM?

A. One of the three (3) main teams supporting the RFP administration process consisting of subject matter experts focused around PPA evaluation and negotiations. The specific disciplines included were contracts, credit, risk management, Midcontinent Independent

[2] https://www.acespower.com/1803ltrfp2019/ (last accessed 2/27/21).

System Operator ("MISO") settlements, MISO operations, MISO generator interconnection queue and its processes, natural gas transportation and operations, environmental, and MISO transmission and congestion. 1803's outside counsel supported the team and reviewed all agreements. 1803 Board of Directors ("Board") and 1803's outside counsel also reviewed agreements. In addition, 1803's Board was presented information and updates frequently and on a regularly scheduled basis.

Q. CAN YOU GIVE A BRIEF OVERVIEW OF HOW THE PPA EVALUATION TEAM EVALUATED BIDDERS WITH PROJECT DEVELOPMENT RISK?

A. Yes, the PPA Evaluation Team evaluated the solar and thermal developers based on a multi-point scale based on 1803's ten (10) goals detailed in the RFP, as appropriate. Specifically, for solar resources, the PPA Team evaluated the following factors: contract price, MISO queue position, MISO upgrade costs, status of permits, status of site control, creditworthiness, development experience, and location. For thermal resources, the PPA Team evaluated the following factors: contract price, MISO queue position, MISO upgrade costs, natural gas lateral costs, status of permits, creditworthiness, development experience, hydrogen capability, and location.

Q. WHAT ABOUT THE PPA'S FOR EXISTING MISO RESOURCES?

A. For PPAs containing existing MISO resources, the PPA Evaluation Team bypassed the project development evaluation and proceeded to the evaluation of the appropriateness of the terms and conditions in addressing the needs and goals of 1803. Additionally, the merits of these existing MISO resources were evaluated and vetted by the Portfolio

Strategy and Analysis Team for the reliability and economic suitability and benefit for 1803.

Q. IF THE DEVELOPMENT PROJECTS SELECTED DO NOT ACHIEVE COMMERCIAL OPERATION DATE ("COD") IN 2025 WHAT IS THE RISK TO 1803?

A. If a project with a fully executed PPA with 1803 does not achieve COD prior to 2025, it will become evident well in advance of wholesale power delivery to 1803's Members. As part of the negotiated PPA terms, 1803 will be provided regularly scheduled updates on the construction status of each of the projects. If it becomes evident that a project will be unable to meet the expected COD, 1803 and its energy manager will have time to determine the expected time variance between COD and when 1803 is to begin providing power supply services. 1803 and its energy manager will evaluate the market conditions during this time period and develop a reliable, economical, and beneficial solution for 1803 and its Members. The MISO market provides significant flexibility to contract with alternative sources during a potential delay.

The solar projects are expected to achieve COD prior to serving 1803, and as such this provides additional cushion to 1803. The largest single risk is the to be constructed Combined Cycle project as it is the largest and most complex portion of the portfolio. 1803 had ACES consider this risk and forward projections indicate a one-year delay of this project from the COD would cause 1803 approximately $5 million ($5,000,000) in additional costs to replace this capacity and energy. The combined cycle Agreement does provide for damages payable to 1803 in the event of a delay. 1803 understood the risk around each project and concluded these risks were well managed in the selected portfolio.

Q. CAN YOU DESCRIBE THE MULTI-POINT SCORING IN MORE DETAIL?

A. Yes, each project was rated on a scale of 1-5 with the lower the number the better the project. The PPA Evaluation Team assigned a value from the five (5) point scale to the aforementioned factors, associated with 1803's ten goals, based on if the resource was thermal or solar. The lower the overall score the better the project was rated.

Q. CAN YOU DESCRIBE YOUR PARTICULAR ROLE ON THE PPA EVALUATION TEAM IN MORE DETAIL?

A. Yes, I served as the market liaison. During Phase 1, I took questions from the PPA Evaluation Team and the Portfolio Strategy and Analysis Team and reached out to the Bidders to get clarification on assumptions so that the model runs could be as accurate as possible. I ensured confidentiality by not being included in the analysis process so that I could remain independent and unbiased in my communications to the Bidders.

Q. PLEASE DESCRIBE YOUR ROLE IN THE PHASE 2 OF THE RFP.

A. During Phase 2, I continued to serve as the market liaison. I took questions from the Portfolio Strategy and Analysis Team and then reached out to get Bidder clarification on assumptions so that the model runs could continue to be as accurate as possible. I continued to ensure confidentiality by not being included in the analysis process so that I could remain independent and unbiased in my communications to the Bidders.

Q. PLEASE PROVIDE MORE DETAIL REGARDING YOUR MARKET LIAISON ROLE IN PHASE 2.

A. 1803 received multiple power supply options ranging from full requirements, partial requirements, project specific, tolling agreements, or specific portfolio supply mixes.

These proposals are difficult to compare and contrast without a strong understanding of the proposal. To assist our PPA Evaluation Team and the Portfolio Strategy and Analysis Team, I conducted phone calls and meetings with a majority of the Phase 2 Bidders including all full-requirements and partial requirements Bidders.

I sought additional information from Phase 2 Bidders that would allow 1803, through ACES' analysis, to fully vet the proposals 1803 received. This vetting included reviewing included costs and seeking to understand the actuality of the risk related to MISO generator interconnection costs and how these interconnection costs would relate to 1803.

This information was supplied back to the Portfolio Strategy and Analysis Team and the 1803 Board without disclosing the identities of the Bidders. My objective was to ensure that the Bidders were accurately being represented in the modeling by making certain that the critical financial information or other information was used to allow equitable consideration in the models.

Q. WHAT FACTORS DID ACES' PPA EVALUATION TEAM EVALUATE AND WEIGH IN ASSESSING RESPONSES SUBMITTED IN 1803'S RFP?

A. The 1803 Board, comprised of the General Manager and one representative from each of the Member Cooperatives' Board of Directors, independently defined and identified ten (10) RFP criteria expressed in order of relative importance, to meet 1803's power supply goals:

1. Reliably serving load at the lowest reasonable cost;

2. Minimize the Potential volatility and market risk associated with 1803's rates;

3. Minimize cost Exposure to future environmental regulations and unknown environmental mitigation and/or clean-up costs;
4. Minimize Exposure to future cost increases passed through to 1803;
5. 1803 prefers fixed price contracts over cost based contracts;
6. 1803 prefers a longer-term contract length, all else being equal;
7. Desirable Counterparty creditworthiness;
8. Desired contract terms (outlined in Appendix E of the RFP);
9. Renewable generation attributes; and
10. The location of resources near load or in the same MISO Zone 9 and the state of Louisiana[3].

V. OVERVIEW OF POWER PURCHASE AGREEMENTS

Q. PLEASE DESCRIBE THE MAGNOLIA PPA.

A. The Capacity Sale and Tolling Agreement provides 1803 57.803% of the output of the Magnolia Power Generating Station, an approximately 709MW natural gas-fired combined cycle power plant in Louisiana. The output includes Energy, MISO Zone 9 Capacity, Ancillary Services, and Environmental Attributes associated with the facility. In addition, 1803 has the right to all Ramp Capability and Reactive Power. The scheduled period for deliveries and purchases under the agreement commences as early as March 1, 2025, subject to the satisfaction of certain conditions, including the receipt of satisfactory

[3] Please see 1803's long-term RFP at pages 34-35: https://aces-wpengine.netdna-ssl.com/wp-content/uploads/2020/02/FINAL-1803-Informational-Filing-Containing-Final-2019-Request-for-Proposals-for-Long-Term-Capacity-and-Energy-Resources.pdf

regulatory approvals, and continues until February 28, 2045. For additional details see Exhibit DDW-1 the Capacity Sale and Tolling Agreement between Magnolia Power LLC and 1803 Electric Cooperative, Inc. effective March 5, 2021.

Q. PLEASE DESCRIBE THE MAGNOLIA FACILITY.

A. Magnolia Power Generating Station will be a clean, flexible, and highly efficient approximately 709 MW (nameplate) natural gas-fired, 1x1 combined cycle natural gas turbine ("CCGT"), single-shaft power plant located [redacted] Additionally, the Magnolia facility will be constructed with the capability to utilize up to 50% hydrogen fuel as a fuel source.

Q. PLEASE EXPLAIN THE MAGNOLIA PPA TERMS RELATING TO THE REQUIRED TIME FOR 1803'S RECEIPT OF REGULATORY APPROVALS FOR THE TRANSACTION.

A. 1803's power purchase commitments under the Magnolia PPA are contingent upon the satisfaction or waiver of various conditions precedent in the Magnolia PPA, including satisfactory LPSC approval. If, on or before December 31, 2021, Regulatory Approval is

not final and non-appealable, then Seller at any time thereafter may terminate the Agreement upon written notice.

Q. PLEASE DESCRIBE THE BAYOU GALION FACILITY.

A. The Bayou Galion Project will be located in Morehouse Parish, Louisiana, on up to 900 acres of leased property. The Project will be a 98 MW AC solar photovoltaic power plant and will include solar photovoltaic modules mounted to a single-axis tracking system connected to DC-to-AC inverters, a 34.5 kV collector system, and a substation with a 34.5/138 kV main power transformer. The Project will be connected at 138 kV to the existing Entergy Louisiana Galion Substation.

Q. PLEASE DESCRIBE THE RECURRENT (BAYOU GALION) SOLAR PPA.

A. The Bayou Galion Renewable Generation Unit PPA is an agreement for the purchase of the full output of the facility, which has an anticipated nameplate capacity of 98 MW. The output shall include the energy, MISO Zone 9 capacity, ancillary services and environmental attributes associated with the facility. The scheduled period for deliveries and purchases commences on January 1, 2025, subject to the satisfaction of certain conditions, including the receipt of satisfactory regulatory approvals from the LPSC, and continues until May 31, 2045. For additional details see Exhibit DDW-2, the Renewable Generation Unit Power Purchase Agreement between 1803 Electric Cooperative, Inc. and Bayou Galion Solar Project, LLC effective as of March 3, 2021.

Q. WHAT ARE THE OBLIGATIONS OF EACH PARTY DUE TO THE AS-AVAILABLE NATURE OF A SOLAR RESOURCE?

A. The Seller will be solely responsible, with respect to the Facility, for all MISO obligations and liabilities, and for complying with MISO Protocols and the MISO Tariff. Seller agrees to reduce the Facility's generation by the amount and for the period set forth in any curtailment order or dispatch instruction received from MISO and must be consistent with the operational characteristics in the agreement. 1803 has no obligation to purchase or pay for any Product delivered in violation of any curtailment order or dispatch instruction received from MISO or for any output that could not be delivered due to Force Majeure and/or emergency conditions. 1803 will have the right to order Seller to curtail deliveries of Energy from the Facility but 1803 must pay the Seller for that undelivered energy. However, if 1803 submits a schedule that clears in the MISO day ahead market, 1803 will not be penalized for MISO dispatch instruction which cause a reduction in Output.

Q. PLEASE DESCRIBE THE ENVIRONMENTAL ATTRIBUTES.

A. One of the benefits 1803 receives associated with purchasing the Output of the Bayou Galion facility is the Environmental Attributes which includes the Renewable Energy Credits ("RECs"). Environmental Attributes also includes current and future credits, benefits, allowances, tax credits, and allowances attributable to the generation of energy by the facility and the displacement of conventional or other types of energy generation. Production Tax Credits or Investment Tax Credits are specifically excluded.

Q. DOES THE BAYOU GALION PPA AUTHORIZE RECURRENT TO CURTAIL ENERGY DELIVERIES FOR ECONOMIC REASONS?

A. No, under the terms of the PPA, the Seller cannot curtail energy delivery due to economic reasons. Also, as previously stated, if 1803 submits a schedule that clears in the MISO day

ahead market, 1803 will not be penalized for MISO dispatch instruction which cause a reduction in Output.

Q. PLEASE EXPLAIN THE BAYOU GALION PPA TERMS RELATING TO THE REQUIRED TIME FOR 1803'S RECEIPT OF REGULATORY APPROVALS FOR THE TRANSACTION.

A. 1803's power purchase commitments under the Bayou Galion PPA are contingent upon the satisfaction or waiver of various conditions precedent in the Bayou Galion PPA, including satisfactory LPSC approval. Unless the Parties otherwise agree in writing, the approval deadline is December 31, 2021. This is the date by when 1803 must have provided to Seller that the PPA has received all necessary approvals, including Regulatory Approval. If 1803 fails to provide proof of Regulatory Approval by December 31, 2021, Seller may terminate the Agreement.

Q. PLEASE DESCRIBE THE BAYOU CHICOT FACILITY.

A. The Bayou Chicot solar power generation project with a 150 MW AC capacity will be sited on approximately 1,035 acres of agricultural land in Evangeline Parish, Louisiana. [redacted]

Q. PLEASE DESCRIBE THE IBV (BAYOU CHICOT) SOLAR PPA.

A. The Bayou Chicot Solar Energy Purchase Agreement is an agreement for the purchase of the full output of the facility, which has an anticipated nameplate capacity of 150 MW. The output shall include the energy, MISO Zone 9 capacity, ancillary services, and environmental attributes associated with the facility. The scheduled period for deliveries and purchases under the agreement is up to 20 years, commencing as early as January 1, 2025, subject to the satisfaction of certain conditions, including the receipt of satisfactory regulatory approvals from the LPSC. The services term shall not extend beyond December 31, 2044. For additional details see Exhibit DDW-3, the Solar Energy Purchase Agreement between 1803 Electric Cooperative, Inc. and Bayou Chicot Solar, LLC effective as of March 4, 2021.

Q. WHAT ARE THE OBLIGATIONS OF EACH PARTY DUE TO THE AS-AVAILABLE NATURE OF A SOLAR RESOURCE?

A. The Seller is required to deliver the Output of the Facility to the point of delivery and 1803 is required to receive such Output. Seller is required to comply with the directives of the Transmission Authority regarding the curtailment of the delivery of all or a portion of the Renewable energy from the Facility to the Point of Delivery. 1803 will have the right to order Seller to curtail deliveries of Energy from the Facility but 1803 must pay the Seller for that undelivered energy. However, if 1803 submits a schedule that clears in the MISO day ahead market, 1803 will not be penalized for MISO dispatch instruction which cause a reduction in Output.

Q. PLEASE DESCRIBE THE ENVIRONMENTAL ATTRIBUTES.

A. Just like the Agreement with Bayou Galion, a benefit 1803 receives associated with purchasing the Output of the Bayou Chicot facility is the Environmental Attributes which includes the RECs. Environmental Attributes also includes current and future credits, benefits, allowances, tax credits, and allowances attributable to the generation of energy by the facility and the displacement of conventional or other types of energy generation. Production Tax Credits or Investment Tax Credits are specifically excluded.

Q. DOES THE BAYOU CHICOT PPA AUTHORIZE IBV TO CURTAIL ENERGY DELIVERIES FOR ECONOMIC REASONS?

A. No, under the terms of the PPA, the Seller cannot curtail energy delivery due to economic reasons. Also, as previously stated, if 1803 submits a schedule that clears in the MISO day ahead market, 1803 will not be penalized for MISO dispatch instruction which cause a reduction in Output.

Q. PLEASE EXPLAIN THE BAYOU CHICOT PPA TERMS RELATING TO THE REQUIRED TIME FOR 1803'S RECEIPT OF REGULATORY APPROVALS FOR THE TRANSACTION.

A. 1803's power purchase commitments under the Bayou Chicot PPA are contingent upon the satisfaction or waiver of various conditions precedent in the Bayou Chicot PPA, including satisfactory LPSC approval. If Regulatory Approval has not occurred by December 31, 2021, the Seller may terminate the Agreement without further obligation or liability.

Q. PLEASE DESCRIBE THE BAYOU TECHE FACILITY.

A. The Bayou Teche solar power generation project will be a 95 MW AC PV solar project sited on approximately 650 acres of agricultural land near Baldwin in St. Mary Parish, Louisiana. [redacted]

Q. PLEASE DESCRIBE THE IBV (BAYOU TECHE) SOLAR PPA.

A. The Bayou Teche Solar Energy Purchase Agreement is an agreement for the purchase of the full output of the facility, which has an anticipated nameplate capacity of 95 MW. The output shall include the energy, MISO Zone 9 capacity, ancillary services, and environmental attributes associated with the facility. The scheduled period for deliveries and purchases under the agreement is 20 years, commencing as early as January 1, 2025, subject to the satisfaction of certain conditions, including the receipt of satisfactory regulatory approvals from the LPSC. The Services Term shall not extend beyond December 31, 2044. For additional details see Exhibit DDW-4, the Solar Energy Purchase Agreement between 1803 Electric Cooperative, Inc. and Bayou Teche Solar, LLC effective as of March 4, 2021.

Q. WHAT ARE THE OBLIGATIONS OF EACH PARTY DUE TO THE AS AVAILABLE NATURE OF A SOLAR RESOURCE?

A. The Seller is required to deliver the Output of the Facility to the point of delivery and 1803 is required to receive such Output. Seller is required to comply with the directives of the Transmission Authority regarding the curtailment of the delivery of all or a portion of the Renewable energy from the Facility to the Point of Delivery. 1803 will have the right to order Seller to curtail deliveries of Energy from the Facility but 1803 must pay the Seller for that undelivered energy. However, if 1803 submits a schedule that clears in the MISO day ahead market, 1803 will not be penalized for MISO dispatch instruction which cause a reduction in Output.

Q. PLEASE DESCRIBE THE ENVIRONMENTAL ATTRIBUTES.

A. Just like the Agreements with Bayou Galion and Bayou Chicot, a benefit 1803 receives associated with purchasing the Output of the Bayou Teche facility is the Environmental Attributes which includes the Environmental Attributes also includes current and future credits, benefits, allowances, tax credits, and allowances attributable to the generation of energy by the facility and the displacement of conventional or other types of energy generation. Production Tax Credits or Investment Tax Credits are specifically excluded.

Q. DOES THE BAYOU TECHE PPA AUTHORIZE IBV TO CURTAIL ENERGY DELIVERIES FOR ECONOMIC REASONS?

A. No, under the terms of the PPA, the Seller cannot curtail energy delivery due to economic reasons. Also, as previously stated, if 1803 submits a schedule that clears in the MISO day

ahead market, 1803 will not be penalized for MISO dispatch instruction which cause a reduction in Output.

Q. PLEASE EXPLAIN THE BAYOU TECHE PPA TERMS RELATING TO THE REQUIRED TIME FOR 1803'S RECEIPT OF REGULATORY APPROVALS FOR THE TRANSACTION.

A. 1803's power purchase commitments under the Bayou Teche PPA are contingent upon the satisfaction or waiver of various conditions precedent in the Bayou Teche PPA, including satisfactory LPSC approval. If Regulatory Approval has not occurred by December 31, 2021, the Seller may terminate the Agreement without further obligation or liability.

Q. PLEASE DESCRIBE THE EXELON PPA.

A. The Power Supply Agreement between 1803 and Exelon is a partial requirements service agreement for 27% of 1803's real-time total load. The agreement provides Firm Electric Energy, MISO Zone 9 Capacity, and Ancillary Services required to serve the contracted load. Under this agreement, Exelon will also be the MISO market participant for their share of 1803's load obligation. The scheduled period for deliveries and purchases under the agreement commences on June 1, 2025, subject to the satisfaction of certain conditions, including the receipt of satisfactory regulatory approvals, and continues until May 31, 2030. For additional details see Exhibit DDW-5, the Power Supply Agreement between Exelon Generation Company, LLC and 1803 Electric Cooperative, Inc. as of March 5, 2021.

Q. PLEASE DESCRIBE THE CALPINE PPA.

A. The Physical Daily Heat Rate Call Option is a transaction for the purchase of 185 MWs of energy on a 7x16 basis, if the daily option is exercised. The generation facility associated with the transaction is the Pine Bluff Energy Center, a natural gas-fired cogeneration facility located in Pine Bluff, AR. The transaction was done under, and incorporates the terms of, the Edison Electric Institute Master Power Purchase and Sale Agreement ("EEI") negotiated between the parties. The scheduled period for deliveries and purchases under the transaction is five (5) years commencing on June 1, 2025 and continuing through and including May 31, 2030. The commencement of the delivery term is subject to the receipt of satisfactory regulatory approvals. For additional details see Exhibit DDW-6, the EEI Master Power Purchase and Sale Agreement between Calpine Energy Services, L.P. and 1803 Electric Cooperative, Inc. effective as of March 11, 2021 and DDW-7 the Physical Heat Rate Call Option Confirmation Letter between Calpine Energy Services, L.P. and 1803 Electric Cooperative, Inc. Effective as of March 11, 2021.

V. CONCLUSION

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

APPLICATION OF 1803 ELECTRIC COOPERATIVE, INC. FOR APPROVAL OF POWER PURCHASE AGREEMENTS AND FOR COST RECOVERY	))))	**DOCKET NO. _____**

AFFIDAVIT OF WITNESS

I, Derek D. Waite, being duly sworn, depose

that the Direct Testimony in the

above referenced matter on behalf of

1803 Electric Cooperative, Inc.

are true and correct to the best of my knowledge, information and belief.

Derek D. Waite

Subscribed and sworn before
me this 15th day of
March, 2021.

Notary Public

Name of Notary and Notary/Bar Roll No.:

Official Seal
Beth A. Burrows
Marion County
Commission Expire 8/24/2024
Commission # 687277

EXHIBIT DDW-1

HIGHLY SENSITIVE PROTECTED MATERIALS

ORIGINAL SUBMITTED CONFIDENTIALLY UNDER RULE 12.1 OF THE LPSC'S RULES OF PRACTICE AND PROCEDURE

EXHIBIT DDW-2

HIGHLY SENSITIVE PROTECTED MATERIALS

ORIGINAL SUBMITTED CONFIDENTIALLY UNDER RULE 12.1 OF THE LPSC'S RULES OF PRACTICE AND PROCEDURE

EXHIBIT DDW-3

HIGHLY SENSITIVE PROTECTED MATERIALS

ORIGINAL SUBMITTED CONFIDENTIALLY UNDER RULE 12.1 OF THE LPSC'S RULES OF PRACTICE AND PROCEDURE

EXHIBIT DDW-4

HIGHLY SENSITIVE PROTECTED MATERIALS

ORIGINAL SUBMITTED CONFIDENTIALLY UNDER RULE 12.1 OF THE LPSC'S RULES OF PRACTICE AND PROCEDURE

EXHIBIT DDW-5

HIGHLY SENSITIVE PROTECTED MATERIALS

ORIGINAL SUBMITTED CONFIDENTIALLY UNDER RULE 12.1 OF THE LPSC'S RULES OF PRACTICE AND PROCEDURE

EXHIBIT DDW-6

HIGHLY SENSITIVE PROTECTED MATERIALS

ORIGINAL SUBMITTED CONFIDENTIALLY UNDER RULE 12.1 OF THE LPSC'S RULES OF PRACTICE AND PROCEDURE

EXHIBIT DDW-7

HIGHLY SENSITIVE PROTECTED MATERIALS

ORIGINAL SUBMITTED CONFIDENTIALLY UNDER RULE 12.1 OF THE LPSC'S RULES OF PRACTICE AND PROCEDURE