

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA

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May 14 2020

DOCKET NO. 2019-184-E - ORDER NO. 2020-244

S.C. SUPREME COURT

MARCH 24, 2020

IN RE: South Carolina Energy Freedom Act	)	ORDER GRANTING IN
(H.3659) Proceeding to Establish Dominion	)	PART AND DENYING IN
Energy South Carolina, Incorporated's	)	PART MOTIONS FOR
Standard Offer, Avoided Cost	)	REHEARING AND
Methodologies, Form Contract Power	)	RECONSIDERATION
Purchase Agreements, Commitment to Sell	)	
Forms, and Any Other Terms or Conditions	)	
Necessary (Includes Small Power Producers	)	
as Defined in 16 United States Code 796, as	)	
Amended) - S.C. Code Ann. Section 58-41-	)	
20(A)	)	

**I. Introduction**

This matter comes before the Public Service Commission of South Carolina (“Commission” or “PSC”) upon the Petitions for Rehearing or Reconsideration filed pursuant to S.C. Code Ann. §§ 1-23-380 and 58-27-2150 and 10 S.C. Code Ann. Regs. 103-825 (A)(4). Petitions for Rehearing or Reconsideration of Order No. 2019-847 were filed jointly by Johnson Development Associates, Incorporated (“JDA”) and the South Carolina Solar Business Alliance (“SBA”), and jointly by the Southern Alliance for Clean Energy and the South Carolina Coastal Conservation League (“SACE/CCL”) (collectively “the Petitioners”). The Commission finds a full rehearing of the evidence is not necessary. However, based upon a full review of the written arguments presented by the parties, in conjunction with a review of the record in this case, certain modifications to Order No. 2019-847 are warranted, as well as a limited rehearing. Accordingly, we grant

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reconsideration and limited rehearing. This Order sets out the Commission's reconsideration on issues and resulting changes to Order No. 2019-847, as well as the grounds for the limited rehearing. To the extent that any rulings within this Order conflict with Order No. 2019-847, this Order supersedes the prior Order. Any matters not specifically addressed in this Order remain unchanged. Our holdings herein and the holdings contained in Order No. 2019-847, which remain unchanged, are all supported by the record of this case.

### Petitions

The petitions<sup>1</sup> filed by JDA and SBA, and SACE/CCL raised five issues with Commission Order No. 2019-847: 1) the interim Variable Integration Charge (“VIC”) and Embedded Integration Charge (“EIC”); 2) consideration of project-specific mitigation measures for VIC/EIC; 3) the avoided energy rates, including consideration of a technology-neutral approach; 4) the capacity value; and 5) Purchase Power Agreements (“PPAs”) with a term longer than ten years.

## **II. Applicable Law**

Pursuant to S.C. Code Ann. § 58-27-2150, a party may apply to the Commission for a rehearing in respect to any matter determined in the proceeding. “The purpose of the petition for rehearing and/or reconsideration is to allow the Commission the discretion to rehear and/or reexamine the merits of issued orders, pursuant to legal or factual questions raised about those orders by parties in interest, prior to a possible appeal.” *In re: South*

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<sup>1</sup> SACE/CCL's Petition for Reconsideration or Rehearing specifically addressed the interim value VIC/EIC and joined and expressly adopted the arguments addressed by JDA and SBA in its Petition for Reconsideration and/or Limited Rehearing.

*Carolina Electric & Gas Co.*, Order No. 2013-5 (Feb. 14, 2013). S.C. Code Ann. Regs. 103-825 (A)(4) provides that a Petition for Rehearing or Reconsideration shall set forth clearly and concisely the factual and legal issues forming the basis for the petition, the alleged error or errors in the Commission Order; and the statutory provision or other authority upon which the petition is based.

In Order No. 2019-847, the Commission acknowledges the significant public importance and the foundational understanding of the interrelation between three entities in the electric sector: the utility, renewable developers, and the ratepayer.

The Commission remains mindful that in enacting Act No. 62, the General Assembly made clear that any decisions by this Commission must “be just and reasonable to the ratepayers of the electrical utility, in the public interest, consistent with PURPA and [FERC’s] implementing regulations and orders, and nondiscriminatory.” S.C. Code Ann. § 58-41-20(A). *See* Order No. 2019-847 p. 10-11

### **III. Factual Findings and Legal Conclusions**

#### **1. Interim VIC/EIC**

The Petitioners seek reconsideration of the \$2.29/MWh interim value VIC/EIC set in Order No. 2019-847, arguing this interim value was unsupported by the evidence and did not meet the statutory requirements that avoided cost rates “fully and accurately” reflect the utility’s avoided costs. S. C. Code Ann. § 58-41-20 (B). Petitioners argue the Commission erroneously relied upon flawed methodology unsupported by evidence in setting the VIC/EIC. The \$2.29/MWh value was derived by reducing DESC’s proposed \$4.14/MWh value by 36.2% to account for the estimated solar forecast uncertainty as

proposed by ORS witness Horii. Order No. 2019-847 at 54. Power Advisory<sup>2</sup> stated it was reluctant to recommend there be no solar integration charge, so it recommended the Commission adopt ORS witness Horii's recommended \$2.29/MWh on an interim basis. Power Advisory Report pp. 23-24. However, Petitioners argue that Power Advisory did not support ORS witness Horii's calculation, asserting that it was based on Navigant's analysis which was flawed in several ways. *Id.* at 24. Petitioners assert that Power Advisory found ORS's position to be reasonable in comparison to the other solar integration charges proposed, but argued ORS's approximation fails to meet the standard set forth by Act 62<sup>3</sup>. In Order No. 2019-847, the Commission found there to be an inadequate basis to determine an accurate level of additional reserves needed for integration of solar (Order No. 2019-847, p. 42); therefore, the Commission now finds that, while the initially approved value of \$2.29/MWh VIC/EIC is supported by the evidence of record, the alternative raised by other intervening parties is persuasive.

SACE/CCL witness Stenclik and SBA witness Burgess both recommended that the VIC/EIC be rejected and the Commission require DESC to recalculate proposed integration charges based on a more accurate and reliable methodology. Tr. p. 629.10, ll. 20-23; Tr. p. 527.14, l. 4 to p. 527.15, l. 4. In the alternative, SBA witness Burgess recommended an integration charge of \$0.96/MWh. Tr. p. 523.93, ll. 1-2. Petitioners contend this proposal addresses and adjusts for several of Navigant's methodological flaws

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<sup>2</sup> Power Advisory, LLC is an independent third-party consultant hired by the Public Service Commission pursuant to S.C. Code section 58-41-20(I).

<sup>3</sup> Specifically, SBA and JDA assert that "Act 62 requires more than a fair guess at what a utility's avoided costs might be – rates must "fully and accurately" reflect those costs. ORS's approximation does not meet that standard." SBA/JDA Petition p. 27.

and inappropriate inputs, compared to the \$2.29/MWh interim charge which only addresses one of the numerous flaws. SBA witness Burgess's proposal included adjustments to account for: 1) operating reserve changes during solar hours only; 2) reduced volatility profile due to geographic diversity; 3) non-islanded operation; 4) use of hourly or sub-hourly solar forecast and dispatch; and 5) improvements in intra-hour dispatch, including the regionally coordinated imbalance services. Tr. p. 523.92, l. 1. By contrast, ORS witness Horii's methodology only accounted for the risk of solar forecast error, which Power Advisory concluded would not produce an accurate estimate of solar integration costs. Power Advisory Report p. 24.

After further review, the Commission agrees with Power Advisory and Petitioners that the Navigant study is flawed. Due to the flawed qualities of the Navigant study, Power Advisory was reluctant to recommend that there be no solar integration charge. Power Advisory Report p. 23. This reluctance by Power Advisory does not necessarily mean that Mr. Horii's recommendation was "correct," but rather that it presented a figure that recognizes some measure of costs associated with solar integration that is properly reflected in an integration charge. Specifically, Power Advisory states, "In Power Advisory's opinion, DESC's proposed values for the VIC, and solar integration costs embedded in its proposed avoided costs, are not adequately supported by the evidence and recommend that lower solar integration costs be employed." Power Advisory p. iii. This is consistent with the reconsideration now granted by the Commission. The Commission finds SBA witness Burgess's testimony compelling and adopts his recommended VIC/EIC of \$0.96/MWh as it more accurately adjusts the modeling done by the Company and

provides a rate that more closely reflects the actual cost of integration. The Commission emphasizes that this is a temporary, interim value until a more accurate cost can be determined through an integration study. Once a more accurate rate is determined, the VIC/EIC will be subject to a true-up, either up or down, depending on the actual integration cost indicated by the integration study.

## 2. Mitigation Measures

Petitioners argued the Commission failed to consider the ability of a solar facility to mitigate the need for a VIC, citing SBA witness Burgess's testimony specifically recommending the VIC should be able to be mitigated through appropriate dispatch of solar, storage, or other QF technologies. Tr. p. 523.91, ll. 12-13. Petitioners further argued SBA witness Burgess's recommendation is consistent with what this Commission ordered in the avoided cost dockets for Duke Energy in Docket Nos. 2019-185-E and 2019-186-E.

Power Advisory states”

“It is impossible to determine, based on the evidence submitted, whether combustion turbines or batteries would be cost-effective if other value streams were considered; if demand response targeted at providing flexible reserves appropriate for solar integration would be cost effective; or how likely it is that some kind of reserve sharing for solar integration will occur at some point over the period for which these rates would apply.”  
Power Advisory Report pp. 21-22.

This assertion, while addressing utility-scale mitigation measures for solar integration, bolsters the position that mitigation measures have the potential for an impact on solar integration charges. Logically, mitigation measures taken at a project-specific level could yield lower costs of integration for the associated projected. Therefore, the

recommendation by Power Advisory supports the use – or at a minimum, availability – of mitigation measures, even at the project-level.

After consideration of the arguments raised in the Petitions, we find that projects which agree to operate in a manner that materially reduces or eliminates the need for additional ancillary service requirements incurred by the utility, including but not limited to QFs with battery storage, should be afforded a reduction or waiver of the VIC/EIC. The Commission agrees with the Petitioners' argument that the opportunity for solar facilities to mitigate the VIC/EIC before it is imposed represents good public policy for the implementation of a novel and complex new concept and charge. Should a disagreement arise between the developer and utility, such issue may be brought to this Commission for determination on a case-by-case basis.

In consideration of this finding, DESC shall file proposed mitigation protocols for Commission consideration that are consistent with the concept outlined herein. DESC shall make this filing within thirty (30) days of the issuance of this Order, but may seek an extension if necessary.

### 3. Approved Energy Rates with a Technology-Neutral Approach

Petitioners argue evidence of record was presented to show DESC's avoided energy calculations were unreliable and could not be shown to fairly and accurately reflect DESC's actual avoided energy rates as required by Act 62. SBA and JDA Joint Petition for Reconsideration p. 13 Order No. 2019-847 acknowledges concerns raised by SBA and Power Advisory about DESC's lack of transparency and accepts Power Advisory's conclusion that it was not possible to conduct an analysis based on the information

provided. Petitioners argue the Commission erred in rejecting SBA's request that the Commission approve a single technology-neutral rate for all QFs rather than adopting DESC's proposed solar-specific rate in addition to a separate, technology-neutral rate for all other QFs. Both SBA and Power Advisory stressed that DESC's underlying avoided cost calculation methodology was unreliable, and no evidence was presented to show that DESC's calculations accurately reflected its avoided energy costs. Power Advisory asserts that, "[t]he data provided by DESC raises significant concerns with the modeling used to estimate avoided energy costs for solar generation." Power Advisory pp. 38 Power Advisory continues, "Given our concerns with the avoided costs modeling ... we are concerned that the avoided cost estimates presented by DESC are not reliable." Power Advisory pp. 39 SBA witness Burgess proposed that the Commission should adopt a technology-neutral energy rate for solar QFs, as it would send more accurate price signals to producers and would avoid potential discrimination against solar and solar plus storage QFs. Tr. p. 523.20, l. 13 to p. 523.21, l. 15. Power Advisory agreed with SBA witness Burgess that DESC's solar-specific avoided energy rates were potentially discriminatory against certain project configurations and a technology-neutral approach is more flexible and reflects actual value for customers in specific hours. Power Advisory Report pp. 37-38. Power Advisory concluded SBA witness Burgess's rates modeled on the non-solar QF contract were reasonable. *Id.*

The Commission finds that, upon reconsideration, while evidence was presented in the record supporting a conclusion that DESC's calculations accurately reflected its avoided energy costs, the Commission must weigh such evidence against the significant

and compelling evidence presented by the Intervenors. Based on the testimony of SBA witness Burgess and the Power Advisory Report, the Commission adopts the PR-Standard Offer Energy Rates proposed by SBA witness Burgess in Hearing Exhibit 10. The Commission finds these rates are more reliable and do not discriminate against small power producers as required by Act 62. Additionally, Act 62 requires transparency from the utilities in the avoided cost proceedings; the Commission expects and requires a much more detailed and transparent analysis concerning the seasonal and hourly value allocation for solar generation in the next avoided cost case.

Based on the evidence of record, the PR-Standard Offer Energy Rates proposed by SBA witness Burgess<sup>4</sup> are adopted as follows:

	<b>DESC Proposed</b>	<b>SBA Proposed</b>
Rate PR-Standard Offer Avoided Energy Rate for Solar QF 2020-2024 (\$/MWh)	\$16.76/MWh	Peak Season Peak: \$31.05/MWh Peak Season Off-Peak: \$27.51/MWh
Rate PR-Standard Offer Avoided Energy Rate for Solar QF 2025-2029 (\$/MWh)	\$15.66/MWh	Off-Peak Season Peak: \$32.52/MWh Off-Peak Season Off-Peak: \$28.93/MWh

#### 4. Capacity Value

In Order No. 2019-847, the Commission adopted Power Advisory’s recommendation of a solar capacity value that should be applied in the calculation of avoided capacity costs. *See Order No. 2019-847* at 21. DESC asserted that the need for capacity is driven by the winter season, therefore the capacity value of solar should be zero, which the Commission rejected, instead adopting DESC’s alternative capacity value of 4%

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<sup>4</sup> See Hearing Exhibit 10.

from DESC witness Lynch's Effective Load Carrying Capability ("ELCC") analysis. *Id.* The Petitioners argued ORS witness Horii's recommended 11.8% capacity value of solar should be adopted, citing ORS witness Horii's testimony that providing a credit less than calculated for a rate specific to solar generators would be unfair to small power producers and violate the nondiscriminatory guideline of S.C. Code Ann. § 58-41-20 (A) of Act 62. Tr. p. 695.35, ll. 18-20. Mr. Horii testified that, in addition to incorrectly asserting that solar provides no capacity value in the winter, DESC understated the avoided capacity costs due to several incorrect assumptions: 1) an incorrect reserve margin, 2) excessive and inconsistent use of low cost capacity purchases, 3) an overly long combustion turbine ("CT") life, and 4) a mismatch between the avoided cost resource change and the assumed size of a CT unit. Tr. p. 695.33, l. 20 to p. 695.34, l. 5. After further review of the record, we agree.

To calculate this more reasonable solar capacity value, Mr. Horii applied the DESC DRR model and Solar plus Storage workpaper spreadsheet and updated the following inputs:

- 1) Corrected the Company's error for winter target reserve margin from 14% to 21%;
- 2) Corrected the Company's error and model the addition of a CT (instead of purchased power) when capacity needs approach the 93 MW size of a CT in the year;
- 3) Corrected the economic lifetime of a CT from sixty (60) years to twenty (20) years;
- 4) Included a 93 MW change in capacity between the base case and change case, instead of 100 MW, to be consistent with the size of the CT additions modeled by DESC; and

5) Included the ELCC solar capacity factor of 11.8% instead of assuming a zero (0) capacity value for solar.

Upon reconsideration, this Commission finds that ORS witness Horii's recommended 11.8% avoided capacity value is appropriate as it is reflective of the actual avoided capacity value for solar at this time. ORS witness Horii's analysis more accurately represents the status of installed and potentially avoided generation and complies with the provisions of Act 62.

#### 5. PPA Duration

In Order No. 2019-847, this Commission held that the evidence did not support approval of a fixed price PPA with a duration longer than ten years, the evidence only supported a ten-year contract term. *See Order 2019-847* at p. 67. Any determination by the Commission to approve contracts with longer durations must be based on evidence properly entered into the record of this proceeding, therefore proposals submitted post-hearing would not be considered. *Id.* Without specific proposals from the intervenors as to how to comply with Act 62 requirements for longer PPA contract terms, this Commission stated it was unable to consider PPAs with durations longer than ten years. *Id.* This Commission cited JDA witness Chilton's statement about providing testimony at a later date regarding PPA duration, but failing to ever provide such testimony. *See Order 2019-847* at p. 66.

Petitioners argued that, in addition to comments by Power Advisory, other evidence was entered into the record supporting PPAs with longer durations. Petitioners argued JDA witness Chilton's testimony supported PPAs with longer durations, recommending the

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Commission direct the terms of DESC's PPAs be set between fifteen and twenty years, and some for longer than twenty years, in order to meet the high standard of encouragement of renewables as provided by Act 62. Tr. p. 459 l. 9 to p. 460 l. 4.

Act 62 requires DESC to offer PPAs with a minimum term of ten years and gives this Commission the authority to approve longer terms to promote South Carolina's policy of promoting renewable energy. S.C. Code Ann. § 58-41-20(F). Based on the argument of the Petitioners, the Commission finds that more evidence is necessary to make a proper determination regarding PPA durations exceeding ten years. Therefore, the Commission approves the request for a limited rehearing on the issue of PPA durations for longer than ten years, as well as related terms and conditions. The Commission will be in a better position to make a fully informed decision after hearing additional testimony on this issue. Commission staff is instructed to establish and propose a procedural schedule for purposes of this subject-specific rehearing.

6. Changes to Portions of Order No. 2019-847, Incident to Reconsideration

Incident to the reconsideration of Order, No. 2019-847, the Commission discovered a portion of the order which should be addressed to conform with the reconsideration granted herein and correct errors... The first such correcting change regards the following language beginning on page 91 of the order:

In addition, the Commission notes that there were no outstanding motions to compel as of the date of the hearing. Although SCSBA did file a motion to compel, it ultimately elected to withdraw the motion and did not seek to have the Commission intervene into the discovery process. The record therefore reflects that parties determined that responses to their discovery demands were sufficient to further inform them about DESC's filing and to allow them to conduct their analyses. Accordingly, the Commission finds

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that the Company has satisfied the requirements of S.C. Code Ann. § 58-41-20(J) and that its avoided cost filing has been reasonably transparent.

This portion of the order, including all of the language within it, was erroneously included. There is no evidence in the record upon which the Commission could conclude that “parties determined that responses to their discovery demands were sufficient.”

This language is found to be inconsistent with the plain language of the Commission ruling on November 15, 2019, which states in pertinent part:

However, there was concern that the underlying assumptions, data, and results did not have documentation presented that would allow for accessible analysis. While Dominion adequately responded to requests for production, as expected, I move that we instruct Dominion to present substantially more information about the underlying assumptions and data, such that the parties to such future proceedings may more meaningfully evaluate and analyze the methodologies and models employed by the utility. I move that we adopt the recommendations in the Power Advisory Report in respect to the Company’s future avoided cost filings.

In addition to requiring additional information on a prospective basis, the Commission’s intent was to reflect the concerns of lack of transparency, by DESC in this proceeding. The lack of transparency was referenced multiple times in the Power Advisory Report. “[T]hese results should be examined in much greater detail than was possible given the timing and lack of supporting data provided by DESC.” See Power Advisory Report p. 34. “Given the lack of transparency with respect to the Company’s avoided cost methodology and assumptions there aren’t specific changes to the methodology and assumptions that we can recommend.” Power Advisory Report p. 39.

Therefore, this portion of the order is to be vacated. Pursuant to Regulation 103-853 (B), Order No. 2019-847 is hereby amended to excise the language quoted above from the order. In all other respects, other than the issues reconsidered in this order, Order No. 2019-847 is to remain as originally issued.

**IV. Order**

IT IS THEREFORE ORDERED that, based on the above stated findings and conclusions,

1. The Commission adopts the interim value of \$0.96/MWh for the VIC/EIC, to be trued-up, either up or down, once the value is determined after the completion of an integration study;

2. DESC shall file proposed mitigation protocols for Commission consideration. Such filing shall be made within thirty (30) days of the issuance of this Order;

3. The avoided energy rate calculations as detailed above are hereby approved and adopted and Ordered to be implemented by DESC;

4. The avoided capacity value of 11.8%, as detailed in the above findings, is Ordered and approved as reflecting an accurate representation of the actual avoided capacity value for solar at this time;

5. Any tariffs that reflect values adjusted or clarified in this Order are to be updated and refiled with this Commission as soon as practicable;

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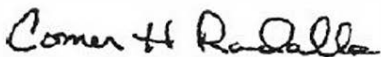
6. That the request for a limited rehearing is approved and this shall be confined strictly to the narrow matter of PPA duration of longer than ten years and related terms and conditions; and

7. That the language erroneously included in Order No. 2019-847, as indicated in Paragraph 6 of this Order, be vacated.

In accordance with the above stated Findings and Conclusions, and based on the preponderance of the evidence, we find as a matter of law that our rulings in this matter are in accordance with Act 62, with S.C. Code Ann. § 58-41-20 (A), and result in a just and reasonable outcome while promoting South Carolina's policy of encouraging renewable energy.

This Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:

  
Comer H. "Randy" Randall, Chairman

ATTEST:

  
Jocelyn Boyd, Chief Clerk/Executive Director