UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

SOLAR ENERGY INDUSTRIES ASSOCIATION | **DOCKET NO. RM12-10-000**

JOINT PROTEST OF NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION AND AMERICAN PUBLIC POWER ASSOCIATION

Pursuant to Rule 211 of the Commission's Rules of Practice and Procedure[1] and the Notice of Petition for Rulemaking issued on February 28, 2012, the National Rural Electric Cooperative Association ("NRECA") and the American Public Power Association ("APPA") hereby submit this protest to the Solar Energy Industries Association's ("SEIA") February 16, 2012 Petition for Rulemaking to Update Small Generator Interconnection Rules and Procedures ("SGIP") for Solar Electric Generation ("Petition") in the above-captioned docket.

The existing SGIP established in Order No. 2006,[2] including the screens used as part of a Fast Track Process, resulted from an extensive consensus process involving all stakeholders.[3] The SGIP continue to meet the goals set forth by the Commission in that order. SEIA's proposed changes to the SGIP will in some cases result in unjustifiably lower reliability and safety standards for solar generation interconnection on many – or even most – public utility

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1 18 C.F.R. § 385.211 (2011).

2 *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, 70 Fed. Reg. 34,190 (June 13, 2005), FERC Stats. & Regs. ¶ 31,180 (2005) ("Order No. 2006"), *order on reh'g*, Order No. 2006-A, 70 Fed. Reg. 71,760 (Nov. 30, 2005), FERC Stats. & Regs. ¶ 31,196 (2005), *order granting clarification*, Order No. 2006-B, 71 Fed. Reg. 42,587 (July 27, 2006), FERC Stats. & Regs. ¶ 31,221 (2006).

33 *See* Order No. 2006 at PP 19-23.

systems. Moreover, some of the proposed changes will likely result in unnecessarily higher interconnection costs, additional disputes, and additional delay in the interconnection process. Importantly, the electric engineering community is already actively evaluating these issues at the IEEE. The Commission should allow that evaluation to be completed before considering changing the SGIP. While changes to the interconnection screens for solar generation may be warranted on a case-by-case basis for utilities that have enhanced expertise and additional load information available, those changes should not be mandated for all public utilities through modifications to the SGIP.

I. DESCRIPTION OF NRECA AND APPA[4]

NRECA is the national service organization for more than 900 not-for-profit rural electric utilities that provide electric energy to approximately 42 million people in 47 states or 12 percent of electric customers. Kilowatt-hour sales by rural electric cooperatives account for approximately 11 percent of all electric energy sold in the United States. NRECA members generate approximately 50 percent of the electric energy they sell and purchase the remaining 50 percent from non-NRECA members. The vast majority of NRECA members are not-for-profit, consumer-owned cooperatives. NRECA's members also include approximately 65 generation and transmission ("G&T") cooperatives,[5] which generate and transmit power to 668 of the 841 distribution cooperatives. The G&Ts are owned by the distribution cooperatives they serve. Remaining distribution cooperatives receive power directly from other generation sources within

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[4] NRECA filed a document-less Motion to Intervene in this proceeding on March 22, 2012. APPA filed a similar Motion to Intervene on March 26, 2012.

[5] The term "G&T" is applied generically to all cooperatives formed by distribution cooperatives for a power supply function, although in some cases a G&T cooperative may supply only generation service or only transmission service.

the electric utility sector. Both distribution and G&T cooperatives were formed to provide reliable electric service to their owner-members at the lowest reasonable cost.

APPA is the national service organization representing the interests of not-for-profit, publicly owned electric utilities throughout the United States. More than 2,000 public power utilities provide over 15 percent of all kilowatt-hour ("kWh") sales to ultimate customers, and do business in every state except Hawaii. Public power utilities own almost 10 percent of the nation's electric generating capacity, but purchase nearly 70 percent of the power used to serve their ultimate consumers. All APPA utility members are Load-Serving Entities ("LSEs"), with the primary goal of providing customers in the communities they serve with reliable electric power and energy at the lowest reasonable cost, consistent with good environmental stewardship. This orientation aligns the interests of APPA-member electric utilities with the long-term interests of the residents and businesses in their communities. Collectively, public power systems serve over 46 million Americans.

II. COMMENTS

A. THE 15% INITIAL SCREEN WAS DEVELOPED THROUGH AN EXTENSIVE CONSENSUS PROCESS IN WHICH ALL STAKEHOLDERS, INCLUDING SEIA AND OTHER SOLAR INDUSTRY REPRESENTATIVES, PARTICIPATED.

Throughout the course of the rulemaking proceeding that culminated in the issuance of Order No. 2006, all stakeholders, including SEIA and other solar industry representatives, participated in an extensive consensus process that led to the development of the 15% initial screen for fast track interconnection of small solar electric generation. Application of the 15% initial screen during the fast track process was not intended to block or delay interconnection of generation that failed the screen. Rather, it was only intended to provide a means to expedite and streamline the interconnection of small generating resources that clearly were incapable of

having any adverse impact on system safety, reliability, or power quality, while providing for additional engineering review for those resources that could potentially have such an impact pursuant to a process that the Commission had determined to be just and reasonable and not unduly discriminatory. Accordingly, the screen was intentionally designed to be a conservative standard to ensure the system reliability and safety needed to protect consumers, those working on the transmission system, and other generation interconnected to the system.[6] It is critical that this standard remain sufficiently conservative to ensure as close to a zero-percent failure rate as possible in identifying proposed interconnections that may have a negative impact on the safety or reliability of the transmission system.[7] To the extent a utility subject to these rules has sufficient knowledge and information to safely interconnect solar generation on certain identified circuits based on a different screen, it can seek the Commission's approval of a revised screen on a case-by-case basis without a generally-applicable modification to the *pro forma* SGIP.

In its petition, SEIA has not offered any evidence that there has been a relevant change in the engineering of the grid, in generation technology or in industry standards subsequent to the issuance of Order No. 2006 that warrant lowering of the reliability standards contained in the existing small generator interconnection screens in the *pro forma* SGIP. Rather, SEIA argues that the increased prevalence of solar generation on the system has made it more difficult for new

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[6] Order No. 2006 at P 171 ("We believe the thresholds used in the screens to be conservative and that there is negligible chance that a proposed interconnection could pass the screens and actually impact the safety and reliability of the Transmission Provider's electric system. These thresholds have been vetted by Transmission providers, small generator developers, and representatives of state regulators alike."); *Pacific Gas & Electric Co.*, 135 FERC ¶ 61,094, at P 68 (2011) ("We reject requests to require PG&E to commit to future modifications of the fast track screens. In Order No. 2006, the Commission approved screens in its *pro forma* fast track process so as to minimize the chance that a proposed interconnection that passed the screens would impact the safety and reliability of the transmission provider's electric system.").

[7] In fact, some engineers believe that the SGIP 15% screen itself is insufficiently conservative.

solar generation to pass the 15% initial screen.[8] While it is true that more solar generation is now interconnected with the transmission system than was interconnected when Order No. 2006 was issued, this increase in the prevalence of solar generation is not evidence of any relevant change in technology or industry standards that would justify an industry-wide change in the 15% initial screen for fast track processing. SEIA's assertion that the proposed change would reduce costs for solar generation interconnections does not adequately support its proposal, because the reliability and safety standards applicable to the interconnection of small generation, including solar generation, should not be lowered simply to enhance economic benefits to the solar industry.

NRECA and APPA support solar throughout their memberships, and agree that there may be instances in which a change to the standard SGIP for solar generation is warranted. In fact, many public power utility systems have gained substantial expertise in interconnecting this type of renewable generation, and in some instances may have available information regarding minimum daytime loading levels on particular distribution circuits. In those cases where minimum daytime loading levels are attainable and the utility has enhanced knowledge regarding solar generation, the individual utility has the ability to allow fast track processing for solar generation that may not satisfy the 15% initial screen on those specific circuits where they know that an alternate screen would not pose a risk to safety, power quality, or reliability. This is a utility-specific and circuit-specific decision. However, not all utilities have such expertise or access to such loading data. Because not all utilities have the knowledge and information necessary to safely apply the screen proposed by SEIA, and because the screen proposed by SEIA cannot be safely and reliably applied on all circuits, the Commission should not at this

[8] SEIA Petition at 6-9.

time adopt such a screen in the *pro forma* SGIP that is generally applicable to all public utilities. Instead, the Commission should consider changes proposed by utilities subject to these requirements on a case-by-case basis.

B. ORDER NO. 2006 CONTINUES TO MEET THE GOALS SET FORTH BY THE COMMISSION.

Contrary to SEIA's assertions, the procedures established in Order No. 2006 continue to meet the goals set forth by the Commission when it adopted that order. As the Commission explained in Order No. 2006, its goals in standardizing interconnection procedures were to:

> (1) limit opportunities for transmitting utilities to favor their own generation, (2) remove unfair impediments to market entry for small generators by reducing interconnection costs and time, and (3) encourage investment in generation and transmission infrastructure, where needed.[9]

Furthermore, the Commission also explained in Order No. 2006 that the SGIP approved in that proceeding would help to "strike a reasonable balance between the competing goals of uniformity and flexibility while ensuring safety and reliability are protected."[10] The Commission need not revise the interconnection procedures adopted in Order No. 2006 to continue to meet these goals.

SEIA's own statements belie its contention that the 15% rule no longer achieves the Commission's stated goals. As SEIA explains in its petition, the annual installation of grid-connected solar PV capacity has increased dramatically since Order No. 2006 was issued in 2005. According to SEIA, "[t]oday, solar is the dominant type of distributed generation

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[9] Order No. 2006 at P 15.

[10] *Id*. at P 11.

technology in the United States and deployment of solar systems continues to increase rapidly."[11] The growth in the amount of solar generation interconnected to the grid is a testament to the fact that Order No. 2006, including the 15% initial screen, does facilitate the interconnection of solar generation. Moreover, while the SGIP adopted in Order No. 2006 currently meet the Commission's goals of ensuring reliability and safety, SEIA's proposed changes will likely result in the SGIP no longer doing so.

C. SEIA'S PROPOSED CHANGES TO THE SMALL GENERATOR INTERCONNECTION PROCEDURES WILL LIKELY RESULT IN LOWER RELIABILITY AND SAFETY STANDARDS FOR SOLAR GENERATION INTERCONNECTION.

SEIA has proposed changes to the SGIP that will likely result in lower reliability and safety standards for solar generation interconnection. The arguments and evidence set forth in SEIA's Petition do not justify changes to the procedures that could result in harm to consumers, line workers and other generation interconnected to the transmission system. It would be unjust, unreasonable and unduly discriminatory for the Commission to approve changes to the standardized procedures that lower reliability and safety standards in order to provide economic benefits to a single industry.

As an initial observation, NRECA notes that SEIA's description of the current 15% initial screen is inconsistent, and in some places incorporates erroneous statements regarding the standard. SEIA incorrectly describes the current 15% initial screen as being "15% of *peak circuit load*."[12] In fact, the SGIP provide that, in order to qualify for fast track processing, "the aggregate generation . . . on the circuit shall not exceed 15% of *line section annual peak load*.

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[11] SEIA Petition at 6-7 (internal citations omitted).

[12] SEIA Petition at 3, 12 (emphasis added).

…"[13] This difference is critical because SEIA is proposing to replace the 15% initial screen with a screen of 100% of minimum daytime load on the **circuit** for the period between 10 a.m. and 2 p.m.[14] If there is a fault, 100% of load on the circuit is likely to be significantly more than 100% of load on the line section where the generation resource is located, creating a significant risk of islanding and reverse power flow. A change to the initial screen that applies the screen to **circuit peak load** instead of **line section peak load** would be very significant. *If the standard allows 100% of minimum daytime load on the circuit, a fault using this standard will likely cause significant system damage.*

The Commission should reject SEIA's proposed alternative screen of 100% of minimum daytime load from 10 a.m. to 2 p.m. SEIA has not shown that its proposed screen would result in generator interconnections that meet the same reliability and safety standards as those applying the more conservative 15% initial screen. As explained above and as recognized by the Commission, the 15% initial screen was adopted through an almost three-year long consensus process, and was designed to provide a very conservative benchmark with a zero percent failure rate in identifying interconnections that could result in harm to the system. SEIA's own assertion that "the likelihood of an exceedance of minimum load is extraordinarily low,"[15] indicates that there is a possibility that exceedance could occur. Moreover, the assertion is unsupported in any event, and does not comport with the initial reaction to SEIA's proposal from technical experts that APPA and NRECA have consulted. This is unacceptable in an initial screen that is intended to have a zero tolerance for error. A single instance of SEIA's proposed

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[13] Order No. 2006, Appendix E "Small Generator Interconnection Procedures," at § 2.2.1.2.

[14] SEIA Petition at 2.

[15] SEIA Petition at 14.

screen failing to identify an interconnection that results in a fault on a line could cause significant harm to customers and other interconnected generators, or, more tragically, injury to a line worker or the public. Adopting SEIA's propose screen absent a showing that it is conservative enough to have a zero failure rate imposes too great a risk on other customers, system workers and other generators.

The Commission also should take into consideration the fact that the conservative screen that is currently in place does not prevent solar generation that will not harm the system from interconnecting. It simply identifies proposed interconnections that do not require additional analysis and places them on a faster approval track than those that require additional analysis. It is not unjust, unreasonable, or unduly discriminatory to require a generator, solar or otherwise, that may have negative impacts on the system to undergo the analysis necessary to determine whether the interconnection will harm the safety or reliability of the transmission system, and if so, what action is needed to prevent harm.

The size threshold for fast track interconnection of small generators, including solar generators, should remain at 2 MW. The 2 MW threshold was added to the Fast Track Process by the stakeholders, and was approved by the Commission, in order to "minimize the chance that a proposed interconnection that passed the screens would impact the safety and reliability of the transmission provider's electric system."[16] The Commission's acceptance of the change to the 2 MW threshold in the California Independent System Operator Corporation's ("CAISO") tariff is inapposite, because it was based on specific and unique circumstances of that docket and the underlying rationale is inapplicable to the rest of the country. The Commission accepted the

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[16] *See Southern California Edison Co.*, 135 FERC ¶ 61,093, at P 93 (2011), citing Order No. 2006 at P 171.

change on the basis of CAISO's recommendation as vetted by a stakeholder process.[17] In contrast, no broad stakeholder process has taken place throughout the rest of the country that has resulted in a similar recommendation. Furthermore, until the time that CAISO requested the change in 2010, no small generator had utilized or taken advantage of the Fast Track Process on the CAISO system.[18] As SEIA admits in its Petition, a significant amount of solar generation has been interconnected throughout the United States pursuant to Order No. 2006 and the Fast Track Process with the 2 MW threshold. The CAISO experience cannot be used to justify a change in the SGIP adopted in Order No. 2006 absent a showing that the change will not impact the safety and reliability of other transmission systems – a showing that SEIA has not made.

D. REQUIRING UTILITIES TO MAKE AVAILABLE PEAK AND MINIMUM LOAD DATA WOULD IMPOSE UNJUSTIFIED COSTS ON TRANSMISSION PROVIDERS.

SEIA has also failed to reasonably justify its proposal to require transmission providers to make peak and minimum load data available to developers.[19] Peak load information is available to solar developers as part of the interconnection application process. The fact that developers contend they are getting the information too late to be of assistance is reflective of the timing of the interconnection request rather than the utilities' refusal to make this information available. Further, most utilities do not regularly measure minimum loads on line segments because this information is not necessary for any other purpose. While, as noted above, some utilities do have minimum daytime loading level information available, this is not the industry norm. Undertaking such measurements would be very costly.

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[17] *California Independent System Operator Corp.*, 133 FERC ¶ 61,223, at P 114 (2010).

[18] *Id.*

[19] SEIA Petition at 15-16.

Furthermore, the use of peak loads as a measurement tool is both a better and a readily available standard. Minimum loads may unexpectedly decrease in the future due to the loss of customer equipment or commercial or industrial business closings. Using minimum loads that may decrease in the future can have drastic effects on the reliability and power quality on distribution lines. Given the fact that the alternative screen proposed by SEIA appears to raise significant reliability and safety concerns as described above, and the fact that minimum loads can change unexpectedly, there is simply no justification for requiring utilities to incur additional costs for the sole economic benefit of a single industry.

E. INTRODUCING THIRD PARTY REVIEW INTO THE SGIP WOULD CREATE UNNECESSARY COSTS, DISPUTES AND DELAYS IN THE INTERCONNECTION PROCESS.

There is no need to introduce third party review into the SGIP. Such third party review would only increase the cost of interconnections, create additional disputes, and cause additional delay in completing the process. RTOs and ISOs are independent of transmission and generation owners, and public utility transmission providers are already required to provide transmission service in a not unduly discriminatory manner. Also, an interconnection customer who disputes a public utility transmission provider's upgrade requirements already has the right to seek review by the Commission. An additional layer of review is unnecessary, and the negative impacts on the interconnection process are likely to outweigh any benefits that may be associated with such a review.

F. THE COMMISSION SHOULD ALLOW THE INDUSTRY TO COMPLETE ITS ONGOING ANALYSES OF THESE ISSUES BEFORE CONSIDERING ANY CHANGES TO THE SGIP.

Before considering any changes to the SGIP, the Commission should allow the Institute of Electrical and Electronics Engineers ("IEEE") to complete its analysis of issues regarding

distributed resource interconnection and the high penetration of intermittent generation. Two active IEEE 1547 subgroups are currently addressing these issues. One subgroup (P1547.7) is working to determine the appropriate technical basis for the preliminary review of distribution impact studies for distributed resource interconnection. The second subgroup (P1547.8) is evaluating how the 1547 standard needs to be changed to accommodate the high penetration of intermittent generation. The technical experts conducting these analyses are in the best position to determine whether the existing SGIP screens are effective, or whether they should be changed. The Commission, the industry, and consumers will benefit from allowing the IEEE to complete these analyses before considering any changes to the SGIP.

In the event the Commission is inclined to consider making changes to the SGIP prior to IEEE's completion of its analyses, NRECA and APPA respectfully request that the Commission begin the rulemaking process by issuing a Notice of Inquiry ("NOI"). An NOI would provide the opportunity for the entire industry to provide comments and thoughts on the issues raised by SEIA. Such an approach would provide valuable information to the Commission to assist in its determination of whether changes to the SGIP are warranted at this time.

III. CONCLUSION

WHEREFORE, for the foregoing reasons, NRECA and APPA respectfully request that the Commission reject SEIA's Petition for Rulemaking.

Respectfully submitted,

NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

/s/ Richard Meyer

Richard Meyer, Senior Regulatory Counsel
Jay Morrison, Vice President, Regulatory Issues

4301 Wilson Boulevard
Arlington, VA 22203-1860
Telephone: 703/907-5811

Peter K. Matt
Linda S. Kizuka
Bruder, Gentile & Marcoux, L.L.P.
1701 Pennsylvania Avenue, N.W.
Suite 900
Washington, D.C. 20006-5807
Telephone: 202/296-1500
Facsimile: 202/296-0627

Counsel for National Rural Electric Cooperative Association

AMERICAN PUBLIC POWER ASSOCIATION

/s/ Susan N. Kelly

Susan N. Kelly, Senior Vice President of Policy Analysis and General Counsel
Michael Hyland, Senior Vice President of Engineering Services

American Public Power Association
1875 Connecticut Avenue, N.W.
Suite 1200
Washington, D.C. 20009-5715
202-467-2900; fax: 202-467-2918
E-mail: skelly@publicpower.org
mhyland@publicpower.org

March 27, 2012

CERTIFICATE OF SERVICE

I hereby certify that I have served this day copies of the foregoing on the official service list compiled by the Office of the Secretary in accordance with Rule 2010 of the Commission Rules of Practice and Procedure.

Dated at Washington, D.C. this 27th day of March, 2012.

/s/
Linda S. Kizuka

Bruder, Gentile & Marcoux, L.L.P.
1701 Pennsylvania Avenue, N.W.
Suite 900
Washington, D.C. 20006-5807
Telephone: 202/296-1500
Facsimile: 202/296-0627
E-Mail: lskizuka@brudergentile.com

Counsel for
National Rural Electric Cooperative Association

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