May 21, 2012

Ms. Kimberly Bose
Secretary
Federal Energy Regulatory Commission
888 1st Street, N.E.
Washington, D.C. 20426

Re: SEIA Comments on Technical Conference on Reactive Power Resources in Docket No. AD12-10-000

Madam Secretary:

Pursuant to the Supplemental Notice Requesting Comments issued on April 20, 2012, in the Federal Energy Regulatory Commission (FERC) Reactive Power Resources proceeding, the Solar Energy Industries Association (SEIA) offers the following comments.

SEIA Members Stand Ready to Provide Reactive Power Support Where Appropriate

SEIA commends the FERC staff for conducting a Technical Conference on the important reactive power issue. SEIA has long supported the application of reactive power requirements to solar generation subject to the Large Generator Interconnection Procedures (LGIP) on a project-by-project basis if the Transmission Provider shows, through a system impact study, that reactive power is needed to protect system reliability. This is consistent with Order No. 661[1] as well as the *Nevada Power*[2] decision, which specifically addressed the question of whether a particular solar generator should be required to provide reactive power as a condition of interconnection.

If a Transmission Provider can make a reasonable showing that a solar generator interconnection subject to the LGIP will create a need for reactive power to protect system stability, SEIA members stand ready to provide reactive power support. This, of course, will come at a cost, so it is important that solar generators have confidence in the conclusion that reactive power support is needed. Unnecessary reactive power requirements that have no positive impact on system stability do not benefit anyone.

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1 *Interconnection for Wind Energy,* Order No. 661, FERC Stats. & Regs. ¶ 31,186, *order on reh'g*, Order No. 661-A, FERC Stats. & Regs. ¶ 31,198 (2005).

2 130 FERC ¶ 61,147 (2010).

Meaning of Dynamic Reactive Power Support Should be Clarified

SEIA notes that a number of the Transmission Providers participating in the Technical Conference spoke of the need for "dynamic" reactive power support. Because utilities view the term "dynamic" in different ways, there is a need for clear agreement on the meaning of this term. Otherwise, disparate treatment of similarly situated solar generation could result.

Reactive Power Requirements Can Be Met Through Different Means

We recommend allowing reactive power resource requirements to be met via inherent generator equipment reactive capability, mechanically switched shunt elements or a combination of both. If the Transmission Provider's technical studies identify the need for specialized devices such as Static Var Compensators (SVC) or STATCOM, such devices should be optimally sited on the transmission grid and become part of the network upgrades.

Additionally, we recommend that Transmission Providers be required to describe reactive power needs in as transparent and clear a manner as possible. Based on the identified need, the solar generator should be given a reasonable opportunity to propose to the Transmission Provider what it believes to be the most cost-effective solution to meet these requirements.

Some Reactive Power Requirements Are Not Technology Neutral

Because it is a common practice in some NERC regions, Order 2003 provided for a power factor requirement of 0.95 leading to 0.95 lagging at the Point of Interconnection. If a Transmission Provider wants to adopt a different power factor requirement, Large Generator Interconnection Agreement (LGIA) Article 9.6.1 permits it to do so as long as the power factor requirement applies to all generators on a comparable basis. Following the flexibility allowed in the LGIA, some tariffs have adopted a different power factor requirement such as 0.95 leading to 0.90 lagging measured at the generator terminal.[3] This is beneficial to generators in that it is application independent and therefore makes it easier for generators to comply.

However in the same tariffs, asynchronous generators are required to meet a different standard, 0.95 leading to 0.95 lagging measured at the Point of Interconnection. This can be comparable in cases where there is a very short generator lead line.[4] However in cases where the generator tie is long, this can be a complex requirement to meet, potentially necessitating additional facilities off-site. SEIA notes that having a measurement at a point other than the generator terminal facilitates the incorporation of other on-site reactive power equipment. Therefore, SEIA suggests that a reasonable compromise would be to identify the power factor requirement of 0.95 leading to 0.95 lagging at the point where the power exits the generator facility, typically at the high side of the main transformer.

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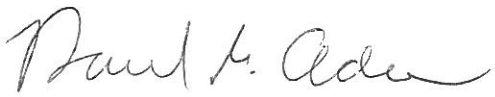
[3] CAISO Tariff Appendix CC – LGIA for Interconnection Requests in a Queue Cluster Window, Article 9.6.1

[4] NERC Special Reliability Assessment: Interconnection requirements for Variable Generation, March 2012, page 23.

Conclusion

SEIA thanks the Commission Staff for providing this opportunity to comment and looks forward to working with the FERC Staff and all stakeholders to develop balanced solutions to the reactive power issue.

Sincerely,



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