FERC Reversal Is Bad News For Small Power Generators

By **Scott Johnson**

Scott Johnson

On Sept. 1, a sharply divided Federal Energy Regulatory Commission abandoned its long-standing approach for determining the power production capacity of a generation facility seeking small power production qualifying facility, or QF, status under the Public Utility Regulatory Policies Act, or PURPA.[1]

For years, FERC had held that the maximum energy output a facility could inject through its interconnection point — i.e., its "send out" — determined whether the facility complied with the 80-megawatt maximum power production capacity for small power production QF status under PURPA.[2]

Now, the power production capacity for a facility not yet certified or self-certified as a small power production QF before Sept. 1 will be the facility's "maximum net power production capacity" as calculated in Section 7 of FERC's Form No. 556 (Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility), adjusted "only [for] parasitic loads and losses that occur independent of the output limiting function of inverters or other output limiting devices."[3]

The decision is a jarring departure from long-standing precedent that developers, owners and operators of, and investors in, small power production QFs have relied upon to determine the maximum net power production capacity of those facilities. It likely will have a significant negative impact on certain development-stage facilities at or near the 80 MW limit, which could threaten their eligibility for QF status, offtake contracts and utility interconnection.

The adverse effects likely will be most severe for oversized hybrid facilities — i.e., those that include both generation and energy storage components, like that of Broadview Solar LLC addressed in the decision — which include power generation components such as solar photovoltaic modules or wind turbines that can generate in excess of 80 MW of direct current, or MWdc, and that are intended, in conjunction with the storage components, to increase the capacity factor of the overall facility by maximizing energy injection capability over intraday generation, charging and discharge cycles.

FERC Commissioner Richard Glick dissented, arguing that "[u]nder any fair reading of [PURPA] or Commission precedent, Broadview's power production capacity is 80 MW [as a result of its number of inverters and their DC to AC conversion capacity], making it eligible for QF status," and that the majority's "contrary determination will make QF status turn on the capacity of any one component of the facility, rather than the actual power production capacity of the facility itself," a "conclusion [that] finds no support in the statute, [FERC] precedent, or common sense."[4]

Background

Before Broadview Solar, FERC held that the power production capacity of a facility for purposes of the PURPA maximum size limit of 80 MW was based on the facility's send out, rather than "the size of [any] individual components."[5] Specifically, the power production capacity of a facility would be "the maximum net output of the facility that can be safely and reliably achieved under the most favorable operating conditions likely to occur over a period of several years."[6]

Specifically, send out would be net output "after subtraction of the power used to operate auxiliary equipment in the facility necessary for power generation (such as pumps, blowers, fuel preparation machinery and exciters) and for other essential electricity uses in the facility from the gross generator output,"[7] to be determined at the point of interconnection, to account for switchyard and transmission line losses.[8]

And, in some cases, FERC determined that occasional exceedance of the 80 MW size limit in PURPA did not necessarily render a facility ineligible for QF status where a "control system would limit the maximum net output to 80 MW in any rolling one-hour period" or under certain other limited circumstances.[9]

The Majority Holding and Analysis

Citing stark differences between Broadview's facility — which includes a 160 MWdc solar array coupled with a 50 MWdc battery storage system, all behind 20 4.2 megavolt ampere inverters that would physically limit the maximum injection of energy from the hybrid facility to the grid to 82.5 MWac, minus certain parasitic loads and losses that would further lower its total net injection capability to 80 MWac — and other facilities that might occasionally or intermittently exceed 80 MW of maximum power production capacity, FERC determined it was necessary to reconsider the Occidental holding that a facility's "maximum net output" is its send out.[10]

Based on that reconsideration, the Broadview Solar majority held that the send out precedent in Occidental "is not consistent with the 80 MW 'power production capacity' limit expressly specified by [PURPA] and [FERC's] regulations."[11]

The majority found that FERC had "improperly focused on 'output' and 'send out,' instead of on 'power production capacity,'" and that under "circumstances such as the factual context before us in this proceeding, the two are not the same."[12]

Instead, the majority explained that the proper power production capacity for PURPA purposes is maximum net power production capacity as calculated in Section 7 of Form No. 556,[13] the filing of which is required for all small power production QFs larger than 1 MW to obtain QF status, whether through an application for FERC certification or the alternative self-certification procedure.

Specifically, the majority explained the Section 7 calculation as follows:

> Form No. 556 starts with the facility's maximum gross power production capacity at line 7a and then subtracts certain parasitic loads and losses to yield the facility's maximum net power production capacity, that is, the facility's ultimate certified capacity. Such parasitic loads and losses—and only those amounts—can be recorded in lines 7b through 7e, as deductions, with the total deductions reflected in line 7f. Line 7g reflects the difference between the maximum gross power production capacity provided in line 7a minus the total deductions allowed in line 7f. Consistent

> with the application of [PURPA and FERC's regulations], the amount in line 7g, the net power production capacity, cannot exceed the 80 MW statutory and regulatory limit.[14]

Importantly, the majority also clarified that, "to the extent it was not already clear, lines 7b through 7e of Form No. 556 may record only the parasitic loads and losses that occur independent of the output limiting function of inverters or other output limiting devices,"[15] and that it was not changing how maximum net power production capacity is calculated in Section 7 of Form No. 556.[16]

Ultimately, the majority held that

> Broadview cannot meet the statutory limit by relying on inverters as a limiting element on a QF's output. As Broadview acknowledges, [its] solar array has the capability to produce 160 MW of DC power. The inverters are capable of converting only 80 MW into AC power, but that is a conversion limit, not a limit on the facility's power production capacity.[17]

Thus, line 7a — the top line of the Form No. 556 calculation that reflects maximum gross power production capacity under the most favorable design conditions — cannot "include adjustments for inverters or other output-limiting devices."[18]

The majority stated that "there is a significant difference between (i) design capabilities that may incidentally or occasionally cross PURPA's 80 MW threshold due to certain components or variances, such as fuel or ambient temperature and (ii) a facility purposefully designed with a 160 MW solar array."[19] On that basis, the majority denied Broadview's application for certification of its hybrid facility as a small power production QF, and revoked its QF status resulting from a self-certification filed while its application was pending.[20]

Facilities With a Form No. 556 on File Before Sept. 1 Not Affected

Responding to Broadview's concern that abandoning Occidental would cause significant industry disruption, the majority made its decision prospective only — i.e., it "does not affect QFs that have self-certified or have been granted Commission certification prior to" Sept. 1.[21] Specifically:

> If a QF that has listed a maximum net power production capacity of 80 MW or less has a Form No. 556 on file with the Commission prior to [Sept. 1, 2020], even if it may have included adjustments for inverters or other output-limiting devices to calculate its maximum net power production capacity as 80 MW or less, then it will be grandfathered with regard to the holding in Occidental ... [and] will still be considered to be [a] small power production [QF] for purposes of PURPA.[22]

However, the majority also made clear that "procurement of a legally enforceable obligation, by itself, is insufficient."[23] It specified that, "given the nature of [the decision], explaining how we now see that the requisite Form No. 556 must be completed, it is appropriate that the grandfathering adopted here for existing QFs be tied to such QFs having submitted a Form No. 556."[24]

Commissioner Glick's Dissent

Noting that Broadview's facility would be "physically incapable of producing more than 80

MW of electricity for any subsequent use" — i.e., delivery to the transmission grid — Glick argued that "[i]nstead of increasing the power production capacity of Broadview's facility, the large solar array enhances its capacity factor, meaning that the facility will, all else equal, generate a higher fraction of its total 80 MW capacity than it would with a smaller array," which makes it more efficient.[25]

What should matter for purposes of the PURPA maximum size limit, Glick argued, is the "actual power production capacity of the resource as a whole, not the capacity of its largest individual component part."[26] According to Glick, this is because:

> Looking to the size of each component would upset [the] otherwise straightforward inquiry (power production capacity of the facility as a whole, rather than nitpicking the capability of each component) and cause the Commission to insert itself unnecessarily into commercial decisions that are better made by project developers than federal regulators.[27]

That, Glick suggests, is why FERC, until now, "has ... consistently taken a pragmatic approach to defining the power production capacity — one that is consistent with Congress's directive that the Commission should 'encourage' QF development" in implementing PURPA.[28] Glick also expressed concern that "so casually upending settled precedent creates unnecessary uncertainty, making it hard for developers to know which precedents they can count on and which they cannot."[29]

Implications

The majority's decision has potentially serious negative implications for development-stage generation and storage hybrid facilities designed with gross generating capacity greater than 80 MWdc that intend to rely on FERC's former output or send out analysis to obtain small power production QF status. While the configuration of the Broadview facility is a fairly extreme example of such a design, the majority's holding and reasoning applies equally to much smaller projects.

While the majority did not change the inputs for the Section 7 calculation, certain filers of Form No. 556 in recent years have relied upon the Occidental precedent to add information to their applications for small power production QF certification and/or Form No. 556 self-certifications, to explain why, under certain circumstances, the send out of their facilities would not exceed the 80 MW maximum set forth in PURPA or the maximum thresholds for certain regulatory exemptions for QFs in FERC's regulations.

The majority's decision likely will limit or eliminate opportunities to do that for facilities on the margins of the maximum size limit and the thresholds for those exemptions. In addition, the decision raises questions about how to treat inverter conversion losses.

As is clear from Form No. 556, "[e]lectrical losses in AC/DC conversion equipment, if any," are an allowable deduction from "maximum gross power production capacity" in the calculation of the "maximum net power production capacity" of the facility for QF certification and self-certification purposes. However, as noted above, the majority specified that "lines 7b through 7e ... may record only the parasitic loads and losses that occur independent of the output limiting function of inverters or other output limiting devices."[30]

Does that mean that only electrical losses resulting from the design characteristics of an inverter should be included on line 7d? Or would it be appropriate to include the difference

between (1) maximum gross power production capacity and (2) inverter count-based maximum energy injection capability on line 7d?

The decision is clear that the top line of Section 7 should not be adjusted for inverter limitations or other output-limiting devices. But does that mean that line 7d should not be adjusted for inverter count and conversion capability, whether or not any other output-limiting devices or means are present?

There is uncertainty, but footnote 60 strongly suggests that deducting anything more than actual inverter conversion losses based on design characteristics would not be permissible. In this way, the order could have negative implications much broader than just for facilities factually similar to Broadview's facility.

Fortunately, as noted above, the decision is prospective only for facilities with no Form No. 556 on file as of Sept. 1. This spares the "untold numbers of facilities already in operation"[31] for which developers, owners, operators and investors relied on precedent like Occidental, Malacha and others in obtaining small power production QF status.

It does not, however, reduce the uncertainty, transaction risk, cost or inconvenience of the decision to developers and owners of or investors in facilities that have not yet obtained small power production QF status. For a facility that has a Form No. 556 on file prior to Sept. 1, it seems likely that it would continue using its pre-Broadview Solar approach in the event of a recertification or self-recertification because it would meet the grandfathering requirement.

However, after Dec. 31, when FERC's recent final rule overhauling its PURPA regulations becomes effective, such recertification or self-recertification that makes a substantive change to the prior certification or self-certification would be subject to protest by any interested party.

With respect to how colocated storage is treated in general for purposes of QF certification or self-certification, the majority declined to address the issue — noting that because Broadview's 160 MWdc solar array "is double the 80 MW statutory limit for power production capacity,"[32] it did "not need to address whether the associated battery storage system is a separate facility or whether and how the battery storage system should be considered in determining the facility's power production capacity."[33]

Broadview Solar does not directly address whether the new power production capacity approach will also be used for other facility size determinations under FERC's PURPA regulations, including the 30 MW limit for exemption from most provisions of the Federal Power Act, the Public Utility Holding Company Act and certain state laws and regulations concerning the rates of electric utilities and the financial and organizational regulation of electric utilities; the 20 MW limit for exemption from the need for market-based rate authority for wholesale sales of power under Section 205 of the Federal Power Act; and the 1 MW limit for exemption from the need to file a Form No. 556 to obtain QF status.[34]

However, given that all of those are also based on "maximum net power production capacity," it stands to reason that FERC would employ the same approach. Accordingly, it would be prudent for entities seeking to obtain or rely on those exemptions to treat those thresholds as they would the small power production maximum size determination as modified by the Broadview Solar majority unless and until FERC clarifies Broadview Solar or specifies a different approach.

Any request for rehearing of Broadview Solar must be filed by Oct. 1. Thereafter, FERC would have 30 days to act on any timely request for rehearing. Absent FERC action on a timely request for rehearing within 30 days from filing, such request (and any timely request for rehearing filed subsequently) may be deemed denied, and the aggrieved party could petition for appellate review within 60 days thereafter.

In the event of an appeal, FERC could, at any time prior to the filing of the record on appeal with the appellate court, and upon reasonable notice, modify or set aside, in whole or in part, any part of the decision. Broadview likely will seek rehearing of the decision and appeal absent a favorable result on rehearing.

Scott Daniel Johnson is counsel at Akin Gump Strauss Hauer & Feld LLP.

[1] Broadview Solar LLC, 172 FERC ¶ 61,194 (2020) ("Broadview Solar").

[2] Id. P 5 (discussing Occidental Geothermal Inc., 17 FERC ¶ 61,231 (1981) ("Occidental"), Malacha Power Project Inc., 41 FERC ¶ 61,350 (1987) and related precedent).

[3] Id. PP 24-25 and n.60.

[4] Id. (Glick, Comm'r, dissenting at P 1).

[5] Id. P 18.

[6] Id.

[7] Id. (quotation marks omitted).

[8] Id. P 19.

[9] Id. P 20 (discussing Am. Ref-Fuel Co. of Bergen County, 54 FERC ¶ 61,287 (1991)).

[10] Id. P 22.

[11] Id. P 23.

[12] Id.

[13] Id. P 24.

[14] Id. (footnote omitted).

[15] Id. n.60.

[16] Id. P 26.

[17] Id. P 25 (footnote omitted).

[18] Id.

[19] Id. P 21.

[20] Id. PP 1, 28.

[21] Id. P 27.

[22] Id.

[23] Id.

[24] Id.

[25] Id. (Glick, Comm'r, dissenting at P 2).

[26] Id. (Glick, Comm'r, dissenting at P 3).

[27] Id. (Glick, Comm'r, dissenting at P 4).

[28] Id. (footnotes omitted).

[29] Id. (Glick, Comm'r, dissenting at P 7).

[30] Id. P 24 n.60.

[31] Id. P 14.

[32] Id. n.57.

[33] Id.

[34] 18 C.F.R. Part 292, Subpart F (2020).