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Network Load Reporting

March 28, 2018

Purpose of Presentation

- Review of current requirements for reporting of Network Load
 - Focus on Behind-the-Meter Generation (BTMG) requirements
- Discussion of results from the survey of Network Load reporting in SPP

Tariff Provisions

FERC Pro Forma Definition of Network Load

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but **may not designate only part of the load at a discrete Point of Delivery**. Where a Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

SPP Tariff Definition of Network Load

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but **may not designate only part of the load at a discrete Point of Delivery**. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

SPP Tariff Definition of Resident Load for Schedule 11 Billing - Section 41(b) only

(b) Transmission Owners providing transmission service to: (i) bundled retail load for which such Transmission Owners are not taking Network Integration Transmission Service or Firm Point-To-Point Transmission Service under the Tariff; and (ii) **load being served under Grandfathered Agreements for which such Transmission Owners are not taking Network Integration Transmission Service or Firm Point-To-Point Transmission Service under the Tariff. . . .**

Losses in Network Service Load

- SPP Tariff Attachment M, Sec. II(a)

The Network Customer shall be responsible for real power losses associated with Network Integration Transmission Service to its Network Load for each Zone in which its Network Load is located for the purposes of determining charges under Schedule 9 and Schedule 11 to this Tariff. **The Network Customer's loss responsibility . . . shall be included when calculating that Network Customer's Load Ratio Share, Base Plan Zonal Load Ratio Share and Region-wide Load Ratio Share.**

FERC Orders

FERC Order in FMPA v. FP&L

- Docket Nos. TX93-4 & EL93-51

Page 23: FMPA argues that Florida Power's local resources should be treated differently because all are connected to the grid, while FMPA's generating units can meet local loads without first entering the Florida Power grid. This is not a meaningful distinction. . . . If FMPA has a load and resource that it does not want to integrate, it can isolate the load and resource from Florida Power's transmission system and eliminate it from the request for full integration

Order 888

Page 297: . . . if a customer wishes to exclude a particular load at discrete points of delivery from its load ratio share of the allocated cost of the transmission provider's integrated system, it may do so. Customers that elect to do so, however, must seek alternative transmission service for any such load that has not been designated as network load for network service. **This option is also available to customers with load served by "behind the meter" generation that seek to eliminate the load from their network load ratio calculation.**

Order 888-A

Page 245: . . . the Commission will allow a network customer to exclude the entirety of a discrete load from network load, but not just a portion of the load served by generation behind the meter.

Page 247: Quite simply, a load at a discrete point of delivery cannot be partially integrated – it is either fully integrated or not integrated.

Order in Occidental Complaint against PJM - Docket No. EL02-121

PJM's practice of adding back the amount of load reduction during curtailment was rejected by FERC:

¶ 27: . . . the Commission found that **PJM's practice of adding back curtailed load to its calculation appeared inconsistent with the underlying rationale of reducing a customer's costs when it reduces load during system peaks.** The October 10 Order further noted that relying on curtailed loads to allocate PJM's access charge costs may create a disincentive for load serving entities (LSEs) to implement load response programs on their own systems, since LSEs would be charged for system costs regardless of whether they curtail load during system peaks.

Order 890

- ¶ 1619: The Commission is not persuaded to require transmission providers to allow netting of behind the meter generation against transmission service charges to the extent customers do not rely on the transmission system to meet their energy needs . . . We believe it is most appropriate to continue to review alternative transmission provider proposals for behind the meter generation treatment on a case-by-case basis, as the Commission did in the PJM proceeding cited by the commenters.

Order 890-A

¶ 965: The Commission declined to require transmission providers to allow netting of behind the meter generation against transmission service charges to the extent customers do not rely on the transmission system to meet their energy needs, stating that commenters had not provided any different arguments not fully addressed in Order No. 888. . . The Commission concluded it is most appropriate to continue to review alternative transmission provider proposals for behind the meter generation treatment on a case-by-case basis.

Order 890-B

¶ 216: In Order No. 890-A, the Commission reiterated that the pro forma OATT permits transmission customers to exclude the entirety of a discrete load from network service and serve such load with the customer's behind the meter generation and through any needed point-to-point service, thereby reducing the network customer's load ratio share. In other situations, use of point-to-point service by network customers is in addition to network service and, therefore, does not serve to reduce their network load . . .

Order in Ameren Complaint against PrairieLand – Docket No. EL09-69

¶ 27: PrairieLand failed to comply with the Tariff by not designating its total load as Network Load . . . PrairieLand had the responsibility under its Service Agreement and the Tariff to designate the necessary behind-the-meter generation when taking Network Service. **As the Commission has explained in Order Nos. 888 and 890, the responsibility for load served by behind-the-meter generation is with the transmission customer**

Summary of Network Load Reporting Requirements

For network service at a discrete delivery point, SPP understands FERC's general policy as requiring all actual load to be reported

Since only actual load is to be counted, there should be no add-back of load that has been reduced by utility curtailment or interruption

The load is to reflect adjustment for losses across the transmission system in accordance with the SPP Tariff

Summary of Network Load Reporting Requirements

A customer can have discrete delivery points, some of which are served by network service (100%) and others of which are served by either point-to-point or a combination of point-to-point and BTMG

For a discrete delivery point under network service, SPP has identified no generally applicable exemptions for partial load served by:

- Behind-the-Meter Generation
- Point-to-point service

Does FERC Allow Exceptions?

Yes. Exceptions to the general requirements have been approved by FERC when requested and justified on a case-by-case basis

Order 890-A

¶ 970: . . . Any alternative transmission provider proposals for behind the meter generation treatment will be reviewed on a case-by-case basis.

PJM's Policy for BTMG

In Docket No. ER04-608, FERC conditionally accepted PJM's proposal to allow netting of load that is served by BTMG at the same electrical location as the load.

- The transmission and distribution systems would not be utilized by such BTMG
- This change allowed for netting of BTMG for **retail** load

In Docket Nos. ER04-608 and EL05-127, FERC accepted PJM's proposal to expand the netting program to include a limited amount of **non-retail** BTMG serving load without using the transmission system

PJM's Current Definition of BTMG

“Behind The Meter Generation” shall refer to a generation unit that **delivers energy to load without using the Transmission System** or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of the Office of the Interconnection); provided, however, that Behind The Meter Generation **does not include** (i) at any time, any portion of such generating unit’s capacity that is designated as **a Generation capacity Resource**; or (ii) in an hour, any portion of the **output of such generating unit[s] that is sold to another entity** for consumption at another electrical location or into the PJM Interchange Energy Market.

California ISO Stakeholder Process

The Transmission Access Charge (TAC) “is currently assessed at end use customer meters on gross load” and is an energy-based (MWh) charge rather than a peak demand charge

In recent months, CAISO has been undertaking a review of the TAC rate structure with its stakeholders and is considering multiple alternatives

MISO Stakeholder Process

In recent months, the Planning Advisory Committee has been discussing and gathering stakeholder comments regarding treatment of BTMG in network load reporting

MISO staff's presentation at the March 14 PAC meeting included a proposed schedule to finalize Tariff language regarding BTMG in October 2018

Results of the Load Reporting Survey Requested by MOPC

Network Customer Outreach

- Original Survey sent to 62 Transmission Customers with Network Load
- Intended to gain understanding of footprint reporting practices for MOPC discussion
- Asked about Grandfathered Loads and MW Behind-the-Meter with regard to Network Loads reported for Transmission billing
- Some follow-up questions were sent to gain clarity on answers given
 - All surveys have been returned
- Recently, a 2nd survey specific to MW behind the retail meter was sent to the same audience
 - Half have been returned

Grandfathered Loads

- Most responses showed no “non-standard” treatment, with GFA MW included in Resident Load
- Reported exceptions:
 - “GFA load not Resident Load due to "Load is pseudo-tied to XXXX who is also the power Supplier" or "Load is Pseudo-Tied to XXXX " - creating dependency that each respective Zone is reporting those loads in Resident Load.
 - “The full reservation is used as the CP, not the actual schedule”
 - GFA loads don’t count toward Resident Load due to either “sinking in another Zone”, or “being associated with another TSR that’s paying Schedule 11”
 - Some “...relate to PTP transactions that sink in a different transmission pricing zone within SPP, and are therefore, excluded in determining...Schedule 11 charges pursuant to Section 41(b) of the SPP tariff.”

Grandfathered Loads – Discussion Points

- What would exempt GFA from a Resident Load amount?
 - Pseudo-Tied to another Zone?
 - GFA Sinking in another Zone or exiting the region?
 - SPP PTP in the continuous transmission path of the GFA?
 - Other?
- What MW to report?
 - Reserved amount vs. Schedule amount

Behind-The-Meter (BTM) MW

- Multiple responses showed “non-standard” treatment, with BTM MW not being included in Network Load amounts
- Reported exceptions:
 - “At this time, we are not adding in generation consumed behind a **retail meter**.”
 - “XX has interpreted the combination of btmg registration requirements in SPP Protocols 6 and in OATT Attachment AE, Section 2.2(6), and the definition of Network Load in NITSA Section 2.0 and in OATT 34.4 to be such that small (loads)...are **netted against Network Load**.”
 - “XX is netted against Network Load, but is behind a retail meter **and should be ignored no matter what**.”
 - “We do not add the solar farm gen into our peak because it’s a BTM, unregistered, and **undispatchable resource**. In real time when it operates, it will reduce our SPP load by its output, and it also reduces our reported NITS one-hour peak load by the solar farm output. We use the same number for both the monthly number and the PYCP. We only add the solar farm generation back in when reporting our total load for the month on the Net Energy for Load form, and also in the Resource Adequacy Workbook.”

Behind-The-Meter (BTM) MW

- Reported exceptions continued:
 - “This unit is not registered in the Marketplace because of the aforementioned **inability to feed into the transmission system(s)**. This unit is strictly used for two purposes: offset usage and allow for emergency load support during outages.”
 - “However, the BTM generators that are not registered with the market do **reduce down the load** before it is reported.”
 - “XX does not currently include **end-use customer-owned generation** that is behind the retail meter in the TC NITS Load calculation.”
 - “With regards to NITS, no, we do not currently add BTM generation to our reported NITS load, per our **internal interpretation** of “BTM”.”
 - “All behind the Meter Gen if running at the peak is included in NITS reporting. An exception to this is **retail customers that have generation behind the retail meter**. We have no way of metering solar panels for example behind retail meters.”
 - "**Awaiting final determination** and establishment of rules/guidance from SPP"

Behind-The-Meter (BTM) MW

- Reported exceptions continued:
 - “All BTM generation is **netted** against NITS Load.”
 - “...XX references SPP's ongoing discussion about **1MW threshold** - looking for agreed upon guidance.”
 - “XX and the XX have numerous small backup generators at our plants, control centers and microwave sites. These backup generators are **never synchronized** to the power system so we did not include them in our response.”

Behind-The-Meter – Discussion Points

- What would exempt BTM MW from a Network Load amount?
 - Behind the retail meter vs. wholesale meter?
 - Generator not synchronized to the Transmission System?
 - BTM MW < X MW?
 - Can BTM MW net against Network Load reported?
 - Does market registration affect whether the generation is reported?

- Different Treatment for:
 - Transmission Billing
 - Resource Adequacy / Planning
 - Integrated Marketplace Billing

DISCUSSION