

FERC Native Load Preference Policy

November 10, 2021

- Why start with a policy discussion before getting into methodology?
- General statements about native load preference
- Implementation elements that define nature of native load preference
 - Designated Network Resources
 - Capacity Benefit Margin (CBM)
 - Transmission Reserve Margin (TRM)

Frequently Used Acronyms



- Available Transfer Capability (ATC)
- Capacity Benefit Margin (CBM)
- Designated Network Resources (DNR)
- Existing Transmission Commitments (ETC)
- Load Serving Entity (LSE)
- Regional Transmission Organization (RTO)
- Total Transfer Capability (TTC)
- Transmission Reserve Margin (TRM)

- FERC/NERC/NAESB acknowledge that there can be multiple methodologies to calculate available transfer capability
- (Order No. 890 P 209) It is not the methodologies for calculating ATC themselves that create the opportunity for undue discrimination. Instead, the potential for undue discrimination stems from two main sources
 - Variability in the calculation of the components that are used to determine ATC, and
 - Lack of a detailed description of the ATC calculation methodology and the underlying assumptions used by the transmission provider
- For example, utilities A and B would agree ATC is derived by reducing TTC by the sum of ETC, CBM and TRM, but utility A may define ETC to include set-asides for contingencies while utility B may not.

The recent FERC order on CAISO's current import, export and wheeling priorities referenced two paragraphs in Order No. 890 as establishing a native load preference to use available transfer capability

- P 107 in the Native Load Preference section of Order No. 890

CAISO's proposal is therefore consistent with the balance described in Order No. 890 between "the transmission provider's need to meet its native load obligations and the need of other entities to obtain service from the transmission provider to meet their own obligations. (Priorities Order)

We conclude that the native load priority established in Order No. 888 continues to strike the appropriate balance between the transmission provider's need to meet its native load obligations and the need of other entities to obtain service from the transmission provider to meet their own obligations. (Order No. 890)

- P 259 in the Capacity Benefit Margin section of Order No. 890

Order No. 890 permitted transmission providers the ability to calculate transfer capability in a way that allowed the transmission providers to meet generation reliability criteria in serving native load. (Priorities Order)

Each LSE within a transmission provider's control area has the right to request the transmission provider to set aside transfer capability as CBM for the LSE to meet its historical, state, RTO, or regional generation reliability criteria requirement such as reserve margin, loss of load probability (LOLP), the loss of largest units, etc. (Order No. 890)

- High level native load preference
 - Balance between the transmission provider's need to meet its native load obligations and the need of other entities to obtain service from the transmission provider to meet their own obligations
 - Right to set aside transfer capability as CBM for the LSE to meet its historical, state, RTO, or regional generation reliability criteria
- But how? Through the assumptions, requirements and calculation of the components that are used to determine ATC
 - Existing transmission commitments associated with designated network resources
 - Capacity Benefit Margin
 - Transmission Reserve Margin

- What is needed to establish an existing transmission commitment eligible for primary network service (i.e., native load preference)? Properly designating network resources.
- (Order No. 890 P 1432) High level requirements
 - Network resources are “generation owned or purchased by the network customer designated to serve network load under the tariff. ... “may not include resources that are committed for sale to non-designated third-party load or otherwise cannot be called upon to meet the network customer’s network load on a noninterruptible basis.”
 - “The network customer must demonstrate that it owns or has committed to purchase generation pursuant to an executed contract in order to designate a generating resource as a network resource”
- (Order No. 890 P 1433) Additional clarifications
 - Can designate as a network resource a system purchase that is not backed by a specific generator
 - The power purchase agreement need not require the LSE to take energy around the clock
 - Because a power purchase is required to be noninterruptible, third-party transmission arrangements to deliver the resource to the network have to be noninterruptible as well
 - A firm purchase need not be backed by a capacity purchase to qualify as a network resource
- What kind of preference does native load get for off-system purchases that qualify as network resources?
 - Higher reservation priority to firm transmission uses by setting aside ETC amount from the ATC calculation. On equal footing with other firm transmission requests for new DNR.
 - Highest “curtailment” priority through Transmission Loading Relief procedures.

- (Order No. 890 P 1475-76) Network customers should not be permitted to designate off-system resources which are so vaguely defined that the effects on ATC cannot be determined
- Details required: (1) identification of the resource as an off-system resource; (2) amount of power to which the customer has rights; (3) identification of the control area(s) from which the power will originate; (4) delivery point(s) to the transmission provider's transmission system; and (5) transmission arrangements on the external transmission system(s)
 - Implication is that off-system purchase details drive ATC, not that ATC is first set aside, and off-system purchases are allowed to “fill in” up to the set aside amount
- Also requires details, to be kept confidential on (1) any operating restrictions (periods of restricted operation, maintenance schedules, minimum loading level of resource, normal operating level of resource); and, (2) approximate variable generating cost (\$/MWh) for redispatch computations

- (Order No. 890 P1493) the restrictions on the designation of network resources do not violate section 217 of the FPA
 - Congress did not require that LSEs be able to take transmission service without limitations of any kind in order to serve their native load,
 - Nothing in section 217 suggests that LSEs should not be required to comply with reasonable requirements that are necessary to prevent undue discrimination and maintain a reliable transmission system
- (Order No. 890 P 1494) requirements for eligibility for designation as a network resource do not impermissibly conflict with state-mandated procurement plans
 - Order No. 888 has long required that contracts be executed and imposed reasonable restrictions on the types of resources that may be designated as network resources

- What kind of preference does native load get for off-system purchases that do not qualify as network resources? Lower (curtailment) priority than other firm transmission uses, higher (curtailment) priority than other non-firm transmission uses. Referred to as “secondary network service”
- (Order No. 890 P 1606) Secondary service is on an as-available basis, and network customers should not be permitted to lock in such service in advance of other non-firm uses of available transmission. Allowing lower-priority secondary service to have a scheduling advantage over non-firm transmission would be inappropriate.
- (Order No. 890-A P 455) The Commission has long required network customers to use secondary network service to deliver energy from non-designated resources to serve network load. To allow network customers to use the firm transmission capacity reserved for designated network resources in such circumstances would unduly preference the network customer over other potential users of that firm capacity.
 - In such a case, the transmission customer could avoid potential curtailments because the purchased energy is scheduled with a higher curtailment priority under NERC guidelines than it would receive had the transmission customer used secondary network or non-firm point-to-point transmission service.
 - In addition, the transmission customer uses service that would have potentially been unavailable if it had requested service as required.

- Transmission capability can be set aside to allow LSE to manage during emergencies
- (Order No. 890 P 256) It is appropriate to allow LSEs to retain the option of setting aside transfer capability in the form of CBM [Capacity Benefit Margin] to maintain their generation reliability requirement. ... without CBM, LSEs would have to increase their generation reserve margins by contracting for generation capacity, which may result in higher costs without additional reliability benefits
 - However, FERC requires standards for how CBM is determined, allocated across transmission paths, and used in order to limit misuse of transfer capability set aside as CBM
- (Order No. 890 P 260) FERC does not mandate a particular methodology for allocating CBM to paths and flowgates, but noted one approach could be based on the location of the outside resources or spot market hubs that an LSE has historically relied on during emergencies resulting from an energy deficiency
- (Order No. 890 P 262) CBM-related standards should specify the generation deficiency conditions during which an LSE will be allowed to use the transfer capability reserved as CBM. In addition, transmission set aside as CBM shall be zero in non-firm ATC calculations.
 - Implication - any transmission capability set aside for CBM is made available for non-firm transmission service which can be curtailed in an emergency

- Attachment C to the MISO Tariff (at section 4.1) states that “MISO will utilize CBM that is needed only when experiencing a declared NERC Energy Emergency Alert (“EEA”) 2 or higher.”
- Section 4 of Attachment C to the MISO Tariff states that, under MISO’s CBM methodology, “[a] Loss of Load Expectation (‘LOLE’) study is used to determine the Generation Capacity Import Requirement (‘GCIR’) of a CBM study zone.”

- Transmission capability can also be set aside to address modeling uncertainties
- (Order No. 890 P 273) Transmission providers may set aside TRM for (1) load forecast and load distribution error, (2) variations in facility loadings, (3) uncertainty in transmission system topology, (4) loop flow impact, (5) variations in generation dispatch, (6) automatic sharing of reserves, and (7) other uncertainties as identified through the NERC reliability standards development process.
- Because load, facility loading and other uncertainties constantly deviate, FERC does not require that TRM set aside capacity be set at zero in the non-firm ATC calculation. In other words, FERC does not require transfer capability that is set aside as TRM to be sold on a non-firm basis.