

### **Standard Development Roadmap**

*This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.*

#### **Development Steps Completed:**

1. SAC authorized posting TTC/ATC/AFC SAR development June 20, 2005.
2. SAC authorized the SAR to be development as a standard on February 14, 2006.
3. SC appointed a standard drafting team on March 17, 2006.

#### **Description of Current Draft:**

This is the first draft of the proposed standard posted for stakeholder comments. This draft includes the modifications identified in the SAR with consideration of applicable FERC directives from FERC Order 693 and Order 890.

#### **Future Development Plan:**

<b>Anticipated Actions</b>	<b>Anticipated Date</b>
1. Respond to comments.	TBD
2. Post revised standard for stakeholder comment.	TBD
3. Respond to comments.	TBD
4. Post for 30-day pre-ballot review.	TBD
5. First ballot of standard.	TBD
6. Respond to comments.	TBD
7. Recirculation ballot.	TBD
8. 30-day posting before board adoption.	TBD
9. Board adoption.	TBD

### Definitions of Terms Used in Standard

*This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.*

**Available Flowgate Capability (AFC):** A measure of the capability remaining in the Flowgate for further commercial activity over and above already committed uses. It is equal to the Total Flowgate Capability less the impacts of existing Transmission commitments (including retail customer service), less the impacts of Capacity Benefit Margin and less the impacts of Transmission Reliability Margin.

**Flowgate:** A single transmission element, or a group of transmission elements, or a single transmission element with one or more contingencies, or a group of transmission elements with one or more contingencies, intended to model MW flow impact relating to transmission limitations and transmission service usage.

**Total Flowgate Capability (TFC):** The amount of electric power that can flow across the Flowgate under specified system conditions without exceeding the capability of the Facilities. Typically expressed in the form of thermal capability. Flowgates can be proxies for Stability and other limiting criteria.

**Transmission Reservation:** A reservation is a confirmed Transmission Service Request.

**Transmission Service Request:** A service requested by the Transmission Customer to the Transmission Service Provider to move energy from a Point of Receipt to a Point of Delivery.

**A. Introduction**

1. **Title:** Capacity Benefit Margin
2. **Number:** MOD-004-1
3. **Purpose:** To promote the consistent and transparent calculation, verification, preservation, and use of Capacity Benefit Margin (CBM) to ensure accurate calculation of reliable transfer capabilities.
4. **Applicability:**
  - 4.1. **Functional Entity:**
    - 4.1.1 Load-Serving Entity that is entitled and would like to have transmission capacity set aside in the form of CBM to maintain resource adequacy requirements.
    - 4.1.2 Transmission Service Provider.
    - 4.1.3 Balancing Authority.
    - 4.1.4 Transmission Planner.
5. **Facility Limitations/Specifications:**
  - 5.1. None.
6. **Proposed Effective Date:** To be determined.

**B. Requirements**

- R1. The Transmission Service Provider shall make publicly available:
  - R1.1. Its procedure for a Load-Serving Entity to request its CBM import MW requirement on each Point of Receipt — Point of Delivery (POR-POD) combination (path) for meeting its resource adequacy requirement (i.e., its procedure for setting aside of Transfer Capability in the form of CBM to maintain a Load-Serving Entity’s resource adequacy requirement).
  - R1.2. Its procedure and assumptions for allocating CBM over each path or Flowgate.
  - R1.3. Its procedure for CBM use (i.e., its procedure for scheduling of energy over transmission capacity set aside as CBM).
  - R1.4. The most recent values of CBM used for calculating Available Transmission Capacity (ATC) or Available Flowgate Capability (AFC) for each timeframe by Flowgate or path, as applicable.
- R2. The Transmission Service Provider shall make publicly available copies of the models used for allocating CBM over each path or Flowgate within seven calendar days following a request by an entity with a valid need for such information.
- R3. The Transmission Service Provider shall determine CBM for the purpose of calculating ATC or AFC for each POR-POD combination (path) as follows:
  - R3.1. The Transmission Service Providers that uses the Network Response Methodology for determining Total Flowgate Capability shall allocate CBM to

each Flowgate based on the distribution factor for the POR to the POD multiplied by the quantity of CBM import MW requirement on each POR-POD combination (path) requested.

**R3.1.1.** The Transmission Service Provider shall use the same methodology as used for its Existing Transmission Commitments (ETC) calculation for accounting for counter-flow when CBM is requested from multiple PORs.

**R3.1.2.** The Transmission Service Provider shall not include transmission capacity set aside for reserve sharing in CBM.

**R3.2.** The Transmission Service Provider that uses the Rated System Path Methodology for determining Total Transfer Capability shall use the algebraic sum of all valid CBM requests for that specific path as the CBM for that path.

**R3.2.1.** The Transmission Service Provider shall not include transmission capacity set aside for reserve sharing in CBM.

**R3.3.** The Transmission Service Provider that uses the Network Response Methodology for determining Total Transfer Capability shall use the algebraic sum of all valid CBM requests for that specific path as the CBM for that path.

**R3.3.1.** The Transmission Service Provider shall not include transmission capacity set aside for reserve sharing in CBM.

**R3.4.** The Transmission Service Provider shall use “zero” as the value for all unscheduled CBM for all non-firm ATC calculations for all methodologies.

**R4.** The Load-Serving Entity that wants CBM allocated for its potential use shall submit, (at least annually) a request for its CBM import MW requirement (i.e., a request for setting aside of Transfer Capability in the form of CBM to maintain the Load-Serving Entity’s resource adequacy requirement) to its Transmission Service Provider and Balancing Authority documenting the quantity of CBM import MW requirement to which the Load-Serving Entity is entitled based upon verifiable historical, state, Regional Transmission Organization, regional, or other resource adequacy criteria. The request shall be accompanied by a report (CBM Import Entitlement Report), which shall include:

**R4.1.** Identification of the Load-Serving Entity

**R4.2.** Projected CBM import MW requirement for each POR-POD combination (path) for each year for the next ten-year period.

**R4.3.** Identification of the entity responsible for establishing the Load-Serving Entity’s resource adequacy requirements.

**R4.4.** Identification of all applicable reserve margin and resource adequacy requirements for the Load-Serving Entity.

See paragraph 1077 of FERC Order 890: “... We also clarify that CBM should only be set aside upon request of any LSE within a balancing area to meet its verifiable historical, state, RTO or regional generation reliability criteria requirement such as reserve margin, loss of load probability, loss of largest units, etc. We expect verification of the CBM values to be part of the Requirements with appropriate Measures and Levels of Non-Compliance.”

- R4.5.** Summary of results of resource studies performed to determine the quantity of CBM, not to include confidential information.
- R5.** The Load-Serving Entity shall document and retain the following information for a period of five years:
- R5.1.** Projected CBM import MW requirement for each POR-POD combination (path) for each year for the next ten-year period.
- R5.2.** Documentation identifying the municipality, state commission, Regional Transmission Organization/Independent System Operator, Regional Reliability Organization, or Regional Entity responsible for establishing the Load-Serving Entity's resource adequacy requirements.
- R5.3.** Copies of all applicable reserve margin and resource adequacy requirements to include one or more of the following:
- Municipality generation reserve margin and resource adequacy requirements
  - State generation reserve margin and resource adequacy requirements
  - Regional Transmission Organization/Independent System Operator generation reserve margin and resource adequacy requirements
  - Regional Reliability Organization reserve margin and resource adequacy requirements
- R5.4.** Copies of all resource planning studies performed to determine the Load-Serving Entity's quantity of CBM to include one or more of the following:
- Loss of load expectation (LOLE) studies/loss of load probability (LOLP) studies
  - Loss of largest unit studies
  - Other reliability resource adequacy studies utilized by a Load-Serving Entity in establishing its CBM import MW requirements.
- R6.** The Load-Serving Entity that uses probabilistic studies for determining the CBM import MW requirement on each POR-POD combination (path) shall:
- R6.1.** Identify and use the criteria required by the Load-Serving Entity's documented resource adequacy requirements (e.g., the LOLE value is 1 day in 10 years, or 1 event in 10 years).
- R6.2.** Identify and use load assumptions (e.g., a load forecast that has a 50% probability of occurrence) in the study that are the same as the load assumptions used to determine the Load-Serving Entity's resource adequacy requirements.
- R6.3.** Identify all resources committed to serve the Load-Serving Entity's load, including:
- R6.3.1.** Generators within the Load-Serving Entity's area with Designated Network Resource (DNR) status.



(path) exceed the amount its transmission system can accommodate for that specific POR-POD combination (path) and shall set aside Transfer Capability in the form of CBM to maintain the Load-Serving Entity's pro-rated requests.

- R7.3.** The Transmission Service Provider shall provide to a Load-Serving Entity's Transmission Planner and make publicly available, the CBM Import Entitlement report provided by a Load-Serving Entity as required in R4.
- R8.** The Load-Serving Entity may request the scheduling of energy over transmission capacity set aside as CBM up to an amount equal to that determined under R7 as required by the Transmission Service Provider's procedure pursuant to R1.3.
- R8.1.** In the event CBM was reduced pursuant to R7.2, the Load-Serving Entity is still entitled to the full CBM import MW requirement on a POR-POD combination (path) requested when scheduling of energy over transmission capacity set aside as CBM
- R9.** The Balancing Authority shall waive the timing and ramping requirements for scheduling of energy over transmission capacity set aside as CBM.
- R10.** The Load-Serving Entity shall declare a NERC Energy Emergency Alert (EEA) 2 and initiate all steps in EEA 2 prior to scheduling of energy over transmission capacity set aside as CBM.
- R11.** The Load-Serving Entity shall provide a report to its Transmission Service Provider within 7 calendar days after the scheduling of energy over transmission capacity set aside as CBM and retain for a period of five years:
- R11.1.** Circumstances under which a NERC EEA 2 was declared and all steps initiated in EEA 2 before energy was scheduled over transmission capacity set aside as CBM.
- R11.2.** Amount of CBM capacity used and energy scheduled over transmission capacity set aside as CBM.
- R11.3.** Start and stop times of when energy was scheduled over transmission capacity set aside as CBM.
- R12.** The Transmission Service Provider shall make publicly available (for a period of one year) the report prepared by a Load-Serving Entity pursuant to R11 beginning within 7 calendar days after receiving the report.
- R13.** The Transmission Planner shall include all valid requests and projected CBM import MW requirements for each POR-POD combination (path) for each year for the next ten-year period, based on the information supplied in the Load-Serving Entities requests and as required in R4.1, in its planning process.
- R14.** The Load-Serving Entity shall not incorporate any of the components of uncertainty identified in Reliability Standard MOD-008-1 R1.1 into its determination of its CBM import MW requirement.

**C. Compliance**

To be added with next posting.

**D. Measures**

To be added with next posting.

**E. Regional Differences**

None identified.

**F. Associated Documents**

**Version History**

<b>Version</b>	<b>Date</b>	<b>Action</b>	<b>Change Tracking</b>