

**Capacity Benefit Margin Implementation Document
(CBMID)****PURPOSE:**

To promote the consistent and reliable calculation, verification, preservation, and use of Capacity Benefit Margin (CBM) to support analysis of ATC and system operations.

CBMID Revision Log

Date	Description of Change
3/30/2011	Initial Version
12/10/2012	Added process used to waive, within the bounds of reliable operation, any Real-time timing and ramping requirements
3/25/2015	Added requirement for LSE or RP to use an approved CBM TSN to tag the request to utilize CBM capacity

CBM is a reserved portion of the Transmission Service Provider's (TSP) interfaces set aside to augment internal capacity with capacity from resources external to the Balancing Authority Area (BAA) in the unusual event that available internal generation resources will not be adequate to satisfy the expected load.

CBM Reservation Process

- 1) Each eligible Load Serving Entity (LSE) or Resource Planner (RP) is responsible for requesting a need for reserving its own CBM requirements to the TSP.
- 2) To request the need for Transmission capacity to be set aside as CBM, the LSE must, using either the Business Practice for CBM Annual request process or the Business Practice for CBM New request process, submit a request to the TSP setting forth the following information:
 - a) the amount of CBM desired on each particular interface;
 - b) a description of the methodology used to determine its CBM; and
 - c) the basis for reserving CBM on the requested paths.

The TSP will attempt to accommodate requests for CBM to the extent that transmission capacity is available on a "first-come, first-served" basis. The TSP reserves the right to deny CBM requests that appear unreasonable or disproportionate given the amount of network generation service being provided to that LSE by the TSP, with Transmission Customer's taking Network Integration Transmission Service under the Tariff limited to that reasonably needed for the amount of load served under Part III of the Tariff.

CBM Determination

Probabilistic analyses using Monte Carlo techniques and historical data may be used to determine the level of CBM required to meet the customer's requirements. The Monte Carlo method considering generating unit forced outages and de-rates based on historical time to failure and time to repair data and the diversity of generating unit forced outages in the region is an acceptable method. Modeling load forecast error probabilities, electrical load from extreme weather temperature probabilities, and the probabilities of dry weather and its impact on hydroelectric energy are additional inputs to the model. Due to the

probabilistic nature of the analysis, extreme cases will likely be generated and a “cutoff point” may be required to eliminate extremely low probability events having high consequence. An acceptable approach is to select a confidence interval range which excludes some extreme events, such as a level in the range of 90% to 99% confidence.

Procedure and assumptions for establishing the interface allocation of CBM

Each eligible LSE or RP is responsible for assigning its requested CBM to the interfaces and notifying the Transmission Service Provider of such assignments in its request to reserve CBM. Paths for CBM should be chosen across interfaces with neighboring first-tier BAAs having sufficient excess generation resources. Sufficient excess generation could be determined by examination of expected reserve margins in those BAAs. Additional consideration should be given to the expected availability of import capability during the situations when emergency import capability would be utilized.

Procedure for LSEs and BAs to use capability set aside for CBM

Transmission capability set aside for CBM may be utilized:

- 1) at any time for non-firm imports provided that no approved request for emergency imports has been made utilizing that capability or
- 2) on a firm basis during Emergencies provided that:
 - i. the transmission capability set aside for use as CBM is available
 - ii. an Emergency has been declared by the Southern BAA or the eligible LSE
 - iii. all non-firm sales from the energy deficient entity have been terminated
 - iv. customer interruptible demands, including direct-control load management, have been interrupted
 - v. posted ATC for importing identified surplus generation into the Southern
- 3) BAA is not sufficient to alleviate the generation deficiency.

An Emergency exists when the resources of an eligible LSE are projected to be insufficient to serve its native/network load customers. Such Emergency meets the conditions established by NERC EEA2. In the case of a declared emergency by a neighboring Balancing Authority or if instructed by the SERC Southeastern Reliability Coordinator, off hour interchange ramping will be accepted.

An eligible LSE will utilize the following steps for calling upon CBM:

- 1) Notify the Interchange Operator of your intent to use CBM
- 2) Use an approved CBM TSN to tag the request
- 3) Use tag code 7-CB (If 7-CB is not used the tag will not pass validation)
- 4) Notify the Interchange Operator of your intent to stop using CBM

In the event that competing requests are made for usage of transmission capability set aside for CBM and the total of requests exceeds the amount set aside, the transmission operator will fulfill those requests in on a prorata basis considering the amount each requestor had previously received as an approved interface allocation.