



AESO Reliability Standards Monthly Report

February 2009

BAL-012-WECC-2-CR - Frequency Responsive Reserve Criterion

Purpose:

Draft Criterion, posted for comment.

Current Criterion:

WECC currently uses BAL-00X-1 FRS Frequency Responsive Reserve Criterion.

Proposed Criterion:

The purpose of this Frequency Responsive Reserve (FRR) Criterion is to develop a criterion that meets the directives of the WECC Board of Directors (Board) and the request for the development of a criterion.

The drafting team identified two measurement periods for a Frequency Response Measurement Event. The periods are the Primary Frequency Response Duration Period from zero to 30 seconds and the Secondary Frequency Response Duration Period from 31 seconds to 15 minutes.

During the Primary Frequency Response Duration Period, the minimum required FRR amount is based upon not permitting under frequency load shedding (UFLS) for the simultaneous outage of the two largest generators in the Western Interconnection for the worst case load conditions of only 80 GW (see system frequency plot below). The simultaneous loss of the two largest generators is a NERC category C event, which allows for controlled load shedding including UFLS. Even though permitted by NERC, the drafting team selected the minimum amount required in the FRR Criterion (BAL-012-WECC-2-CR) such that the tripping of the two largest generators simultaneously will not result in UFLS during light load conditions. Light load conditions with only 80 GW total WECC load is the worst case scenario for exposing the system to UFLS based upon 2007 system studies. The Primary Frequency Response Amount is then allocated based upon load and generation.

Current Status:

The criterion was posted for comment on the WECC site until February 20. The AESO posted comments, which can be seen at the link below.

WECC Link:

[Frequency Responsive Reserve Criterion](#)