

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## Facility Ratings

Paul Johnson, Chair

Facility Ratings Standard Drafting Team

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to ensure  
the reliability of the  
bulk power system

- To address the reliability concerns related to Facility Ratings initially discussed in paragraphs 756 and 771 of FERC's Order 693, and further explained in paragraph 76 of FERC's "Order Denying Rehearing, Denying Clarification, Denying Reconsideration, and Denying Request for a Stay," September 16, 2010. These concerns relate to ensuring broad situational awareness regarding the most limiting equipment of Facilities.

- “In order to determine facility ratings, entities must identify the most limiting component that comprises the facility, based on a validated methodology that considers the specific characteristics and ratings of all of the components to determine their limits for a range of ambient conditions, including if and for what duration these limits can be exceeded. This is, in part, because the limiting element upon which a facility rating is based can change under different operating conditions.

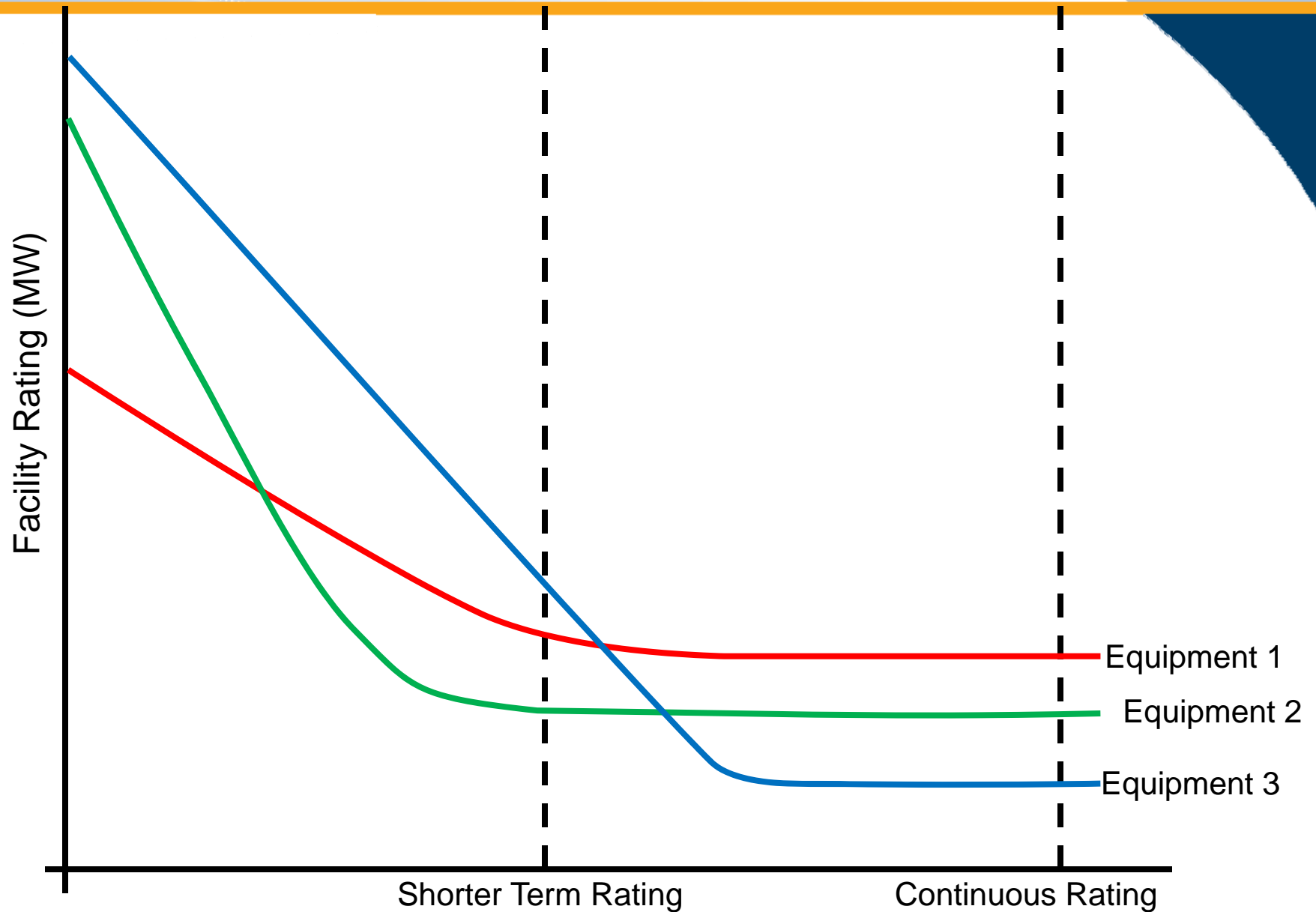
- For example, an underground high voltage cable may be the limiting element for continuous ratings, but a disconnect switch may be the limiting element for a four-hour emergency rating. With heavy power flows from generators through critical facilities to load, contingency conditions could reveal a thermal overload above the normal rating of the first limiting component of one of these facilities. However, that component also likely has a documented short time rating that could sustain the overload.

- If the second-most limiting component does not afford much increase in rating above the first, and its overload can result in the unintended removal of the facility from service (i.e., a relay or other protection system component that trips a facility out of service due to the overload), the prior identification of this second limiting component could alter the mitigation plans and avoid relay operations that trip facilities out-of-service, and thus potentially prevent a cascading event.”

# Discussions with FRSDT, FERC and NERC

- February 24, 2011 – FRSDT, FERC and NERC met to discuss directives and guidance. During the discussions, a scenario was identified and explained in the graphic on the following slide.

# Determination of Rating For Different Periods of Time



- The FRSDT met to discuss the directives and guidance and develop requirements to address the reliability objectives.
- The previously approved FAC-008-2 was the starting point for revisions.
- R7 and M7 have been subdivided into two requirements (R7 and R8) and two Measures (M7 and M8).

## FAC-008-3: R7 revised to apply to GO only

- Each Generator Owner shall provide Facility Ratings (for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities) to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), Transmission Owner(s) and Transmission Operator(s) as scheduled by such requesting entities. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

## FAC-008-3: R8 applies to TO and GO

- Each Transmission Owner (and each Generator Owner subject to Requirement R2) shall provide requested information as specified below (for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities) to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), Transmission Owner(s) and Transmission Operator(s):  
[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

## FAC-008-3: Part 8.1 was in previously approved R7.

- Reliability Requirements of Part 8.1 were in previously approved R7 of FAC-008-2.
- 8.1. As scheduled by the requesting entities:
  - 8.1.1. Facility Ratings
  - 8.1.2. Identity of the most limiting equipment of the Facilities

# FAC-008-3: Part 8.2 addresses Supplemental SAR

- 8.2. Within 30 calendar days (or a later date if specified by the requester), for any requested Facility with a Thermal Rating that the requester has identified as having an Interconnection Reliability Operating Limit, limiting Total Transfer Capability, impeding generator deliverability, or impeding service to a major city or load pocket:
  - 8.2.1. Identity of the existing next most limiting equipment of the Facility
  - 8.2.2. The Equipment Rating for the next most limiting equipment identified in Requirement R8, Part 8.2.1.

- The proposed standard is posted for a 45 day comment period and initial draft until May 2, 2011.
- FRSDT to address comments and move to recirculation ballot in mid-May.
- Revised Standard to be filed with FERC no later than June 15, 2011 per Order on rehearing on September 16, 2010.

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