

A. Introduction

1. Title: Generation Planning Reserve Requirements

2. Number: MRES-001-0

3. Purpose:

To ensure that a common methodology is used to determine the minimum level of generation reserves required in the Midwest Reliability Organization (MRO) footprint for the short term and long term planning horizon.

4. Applicability

4.1. Regional Reliability Organization

4.2. Reserve Sharing Group

4.3. Resource Planner

4.4. Planning Authority

4.5. Load Serving Entity

5. (Proposed) Effective Date: January 1, 2006.

B. Requirements

R1. The Load Serving Entities, Reserve Sharing Groups, Resource Planners and Planning Authorities, based upon their responsibilities, shall perform a generation reserve requirement analysis. To be valid the generation reserve requirement analysis shall:

R1.1 Be performed annually unless it is demonstrated that changes to system conditions do not warrant such analysis.

R1.2 Determine minimum generation requirements on a representative basis for the near-term (years 1 through 5) and the longer-term (years 6 through 10) planning horizons.

R1.3 Meet a loss-of-load expectation (LOLE) of no greater than 0.1 day in one year or one day in ten years.

R1.4 Employ an LOLE methodology that combines the generation capacity outage probability with the expected demand to give an expected risk of load exceeding capacity.

R1.5 Include, at a minimum, consideration of the following:

R1.5.1 Resource Availabilities

R1.5.2 Resource Ratings

R1.5.3 Load Forecasts

R1.5.4 Load Forecast Uncertainty

R1.5.5 Load Diversity

R1.5.6 Emergency Assistance from Other Interconnected systems including multi-area assessment considering transmission limitations

R1.5.7 Maintenance Schedules

R1.5.8 Transmission Limitations

R1.5.9 Inability to dispatch non-conventional sources, e. g., wind, cogeneration, etc.

R1.5.10 Energy limitations of hydroelectric units.

R1.5.11 Uncertainty in unit forced unavailability.

R1.5.12 Extreme weather/drought conditions

R1.5.13 Merchant plant commercial unavailability.

R1.5.14 Proper hourly load modeling (firm, critical, interruptible)

R2. The Load Serving Entities, Reserve Sharing Groups, Resource Planners and Planning Authorities shall document the results of the generation reserve requirement analysis and annually provide the results to the Midwest Reliability Organization.

R3. Load Serving Entities shall document that it has met, on an after-the-fact basis, the near-term reserve level as defined by MRO-RES-001 R1 for all of its firm loads served in the MRO for the previous calendar year and provide such documentation to the Reserve Sharing Group, the Planning Authority and the MRO.

C. Measures

M1. The Load Serving Entities, Reserve Sharing Groups, Resource Planners and Planning Authorities shall have a valid assessment and have evidence that it reported the documentation of results per MRES-001_R1 and MRES-001_R2.

M2. The LSE shall have evidence that it provided the documentation required by MRES-001_R3.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Midwest Reliability Organization

1.2. Compliance Monitoring Period and Reset Timeframe

1.3. Annual Data Retention

The RRO and LSE shall each keep documentation of the annual analysis and evidence of implementation for 10 years. In addition, entities found non-compliant shall keep information related to non-compliance until found compliant.

The Compliance Monitor shall keep the last audit and all subsequent compliance records.

1.4. Additional Compliance Information

None specified

2. Levels of Non-Compliance

2.1 Level 1 Generation reserve requirement analysis was performed, but did not meet the Reliability Standard MRES-001-0_R1.5 in one area

Standard MRO-RES-001-0 — Generation Reserve Requirements

- 2.2 **Level 2** Generation reserve requirement analysis was performed, but did not meet the Reliability Standard MRES-001-0_R1.5 in more than one area and reporting procedures were incomplete.
- 2.3 **Level 3** **Not Applicable**
- 2.4 **Level 4** Generation reserve requirement analysis was not performed.

Version History

| Version | Date | Action | Change Tracking |
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