

Technical Rationale for Reliability Standard

BAL-003-3

April 2023

BAL-003-3 – Frequency Response and Frequency Bias Setting

Rationale for Requirement R5

This requirement has been added to reflect the Standard Drafting Team's (SDT's) opinion of what constitutes a requirement that would benefit the electric system frequency control ability through the use of Governors which are able to respond to frequency disturbances while providing for exemptions.

The proposed requirement uses the Texas RE regional definition for the terms **Governor** and **Primary Frequency Response** and proposes to add them to the NERC Glossary of Terms.

Rationale for Requirement R5, Part 5.1

Requirement R5, Part 5.1 requires that units with Governors operate with the Governors in service and that other controls do not override any Primary Frequency Response that is provided.

Rationale for New Definitions:

The BAL-003-3 Standard Drafting Team (SDT) proposes that the currently-approved Texas RE Regional definition of **Governor** to be made part of the NERC Glossary of Terms generally:

Governor – The electronic, digital, or mechanical device that implements Primary Frequency Response of generating units/generating facilities or other system elements.

The BAL-003-3 SDT proposes that the currently-approved Texas RE Regional definition of **Primary Frequency Response** to be made part of the NERC Glossary of Terms generally:

Primary Frequency Response – The immediate proportional increase or decrease in real power output provided by generating units/generating facilities and the natural real power dampening response provided by Load in response to system Frequency Deviations. This response is in the direction that stabilizes frequency.

These terms are also used in other standards, as indicated below. The BAL-003-3 SDT is obligated to review other standards in which these terms are used to determine if reliability gaps or redundancies are created by the proposed revision to the defined terms. The BAL-003-3 SDT has determined that the proposed definitions do not change the reliability intent of other requirements or definitions. The following is the standard using the terms Governor and Primary Frequency Response:

BAL-001-TRE – Primary Frequency Response in the ERCOT Region: The BAL-003 SDT determined that the proposed definition revision will not create any redundancies or gaps in reliability.