

Order 754 – Data Request

The study of Single Point of Failure

January 5, 2012











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Overview



- Summary of FERC Order 754
- October 24-25, 2011 FERC Technical Conference
- SPCS/TIS Joint Meeting Outcomes
 - Request for Data or Information
- RoP, Section 1600 background
 - Authority
 - Criteria
- Data Request
- Posted for Informal Comment
- Questions and Answers Session



Summary of Order 754

Order 754¹

- Commission's approval of Project Interpretation of TPL-002-0b — PacifiCorp (Project 2009-14²)
- Commission has a concern (P19)
 - Study of a single point of failure on protection systems
- Commission issued a directive (P20)
 - FERC staff to meet with NERC and appropriate SMEs
 - Explore the reliability concern
 - NERC to make an informational filing in six months (March 15, 2012)
 - Explain whether there is a further system protection issue and, if so:
 - What forum to address the issue?
 - What priority based on current initiatives?

¹ http://www.ferc.gov/whats-new/comm-meet/2011/091511/E-4.pdf

² http://www.nerc.com/filez/standards/Project2009-14 Interpretation TPL-002-0 PacifiCorp.html



Technical Conference

- FERC Technical Conference (October 24-25, 2011)
 - Well attended by industry
 - Stakeholders, NERC and FERC staff
 - Discussions were open and helpful
 - o 8 presentations
 - Outcomes
 - 4 Consensus Points
 - Problem Statement
 - 3 potential approaches for addressing the issue



Consensus Points

- Performance based issue, not full redundancy issue
- Existing approved standards address requirements to assess single point of failure
- Assessments of single point of failure of nonredundant primary protection (including backup) systems need to be sufficiently comprehensive
- Lack of sufficiently comprehensive assessments of non-redundant primary protection systems is a reliability concern



Problem Statement

 "The group perceives a reliability concern regarding the comprehensive assessment of potential protection system failures by registered entities. The group agrees on the need to study if a gap exists regarding the study and resolution of a single point of failure on protection systems."



Approaches

- <u>Data Request</u> A small group should develop a proposal to the joint SPCS/TIS committees Dec 6-7, 2011
- Interpretation Request A small group should develop a proposal to be presented to the joint SPCS/TIS committees Dec 6-7, 2011
- Project 2009-07 To be considered later after the review of the first two bullets above



Data Request Background

- RoP, Section 1600 Request for Data or Information
 - Authority
 - o FPA, Section 215
 - o FERC, Section 39.2(d) regulations
 - Criteria
 - Describe why data is needed, its use and collection method
 - Identify the functional entity(ies)
 - Estimate of the burden on reporting entities
 - A schedule for reporting
 - Must not have a compliance use
 - Posting for Comment (45 days)
 - BOT Approval Required



SPCS/TIS Meeting Outcomes

- Data Request Goals
 - Meet the criteria of Order 754
 - Have clear expectations
 - Achieve the least burden on entities
 - Avoid "Compliance" space
 - Obtain quality data
 - Sufficient sample size
 - Data across all voltages > 100 kV
 - Define potential concern:
 - Potential impact on system performance
 - Risk based on attributes of "as-built" protection systems



Responsibility and Method

- Responsibility
 - Transmission Planner
 - Requires assistance from GO(s) and TO(s)
- Method
 - Assessment for a cross-section of system elements operated at > 100 kV
 - 9-step process to assess concern
 - Transmission Planner assesses potential system performance associated with a protection system single-point-of-failure
 - GO(s) and TO(s) assess exposure to single-points-of-failure where a system performance concern is identified



Rationale and Schedule

Rationale

- Provides background on selection of:
 - Buses to be evaluated
 - Protection system components to be evaluated
 - System condition to be studied
 - System performance measure

Schedule

- Periodic reports
- Completion due date



Data Reporting

- Reporting template
 - Reporting template provided as a tool to assist entities
 - Further guidance to be provided on the reporting method
- Data to be reported
 - Statistics concerning the buses evaluated
 - Statistics concerning attributes of protection systems
 - Protective relays
 - Communication systems
 - AC current and voltage inputs
 - DC control circuitry
 - Statistics concerning the attributes of station dc supplies



Posted for Comment

- Informal Comment Period
 - 45 days, ending February 6, 2012
 - Use website for submitting comments
 - Summary consideration of comments
- Desired comment feedback
 - Method
 - Template
 - Schedule
 - Other items

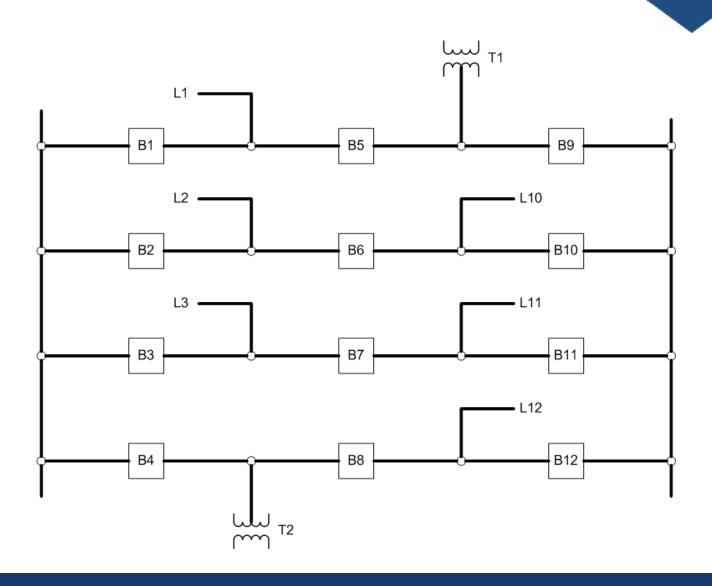


Questions and Answers

- Please submit your questions via the chat feature in ReadyTalk
- The presenters will respond to as many questions as possible during remainder of the scheduled webinar
- Complete slide set will be posted tomorrow on the Order 754 project page in the "Standards Under Development" area

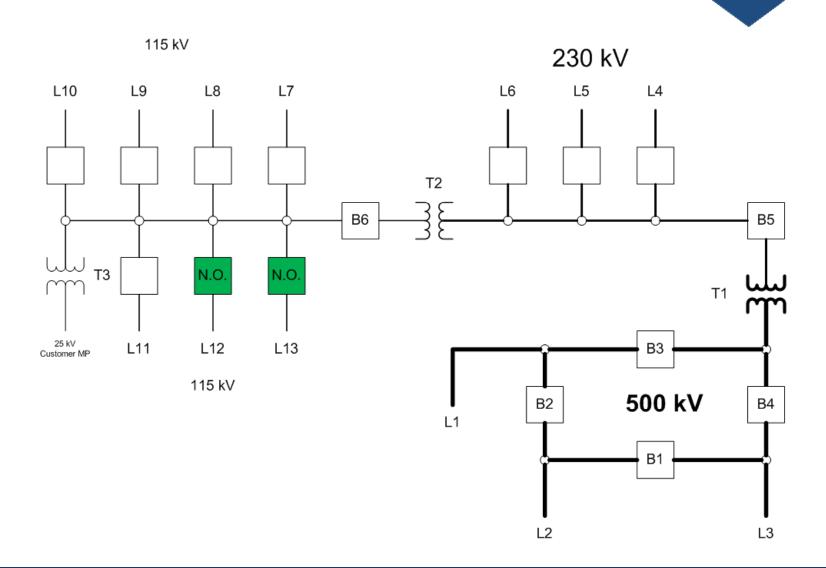


Breaker and a Half





Ring Bus





Additional Buses

