

## Lesson Learned

### Verification of Project Roles and Responsibilities

#### Primary Interest Groups

Generator Owners  
Transmission Owners

#### Problem Statement

A field technician made a wiring mistake during a local breaker failure backup (LBFB) protection scheme test while trying to complete the project on time, which interrupted electrical service to over 260,000 customers.

#### Details

Substation construction and maintenance test crews were preparing to complete the final configuration changes for a substation modification project. Configuration changes included field personnel trip-testing an LBFB protection scheme. The set of drawings the field technician was working from were final versions and included equipment that had not yet been installed. The technician reviewed this final version of the wiring drawings and (in an effort to meet the scheduled deadline) decided to make a temporary wiring change for the test. He performed the testing with permission from his supervisor; however, the supervisor did not obtain the required protection engineering's approval as he did not want to delay the project. As a result, the field technician unexpectedly tripped an energized breaker, causing a circuit interruption which disrupted electrical service to over 260,000 customers.

#### Corrective Actions

The entity's policies were reviewed and revised controls were put in place to re-enforce proper peer inspection and work plan approval.

#### Lesson Learned

When placing new bulk power system facilities into service, the entity should:

- Include all steps in a project checklist and verify completion and sign off by the appropriate personnel prior to placing the facilities into service.
- Follow detailed roles and responsibilities in the review process including a review of the completed design drawings or diagrams for correctness prior to placing facilities into service; verify reviews are done from updated design drawings or diagrams.

- Ensure there is sufficient time allowed for the technician to review all drawings before performing the related task(s).
- If a project is to be implemented in multiple phases, prepare and issue separate drawing packages for each phase.
- When a field technician makes a change to the drawing, verification with engineering is necessary.

For more information please contact:

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