ITCS

Interregional Transfer Capability Study

A strong, flexible transmission system that is capable of coping with a wide variety of system conditions is key for the reliable supply and delivery of electricity. NERC is conducting the Interregional Transfer Capability Study to analyze the amount of power that can be moved or transferred reliably from one area to another area of the interconnected transmission systems. The study, which was directed in the Fiscal Responsibility Act of 2023, must be filed with the Federal Energy Regulatory Commission by December 2, 2024.

October 2023 Quarterly Update

NERC began planning its overall approach to the ITCS in June, kicking off its official study activities when Congress enacted the Fiscal Responsibility Act of 2023. Over the past several months, NERC has diligently worked to develop the foundational documents necessary and put resources and experts in place to guide this important North American power transfer capability study.

Key Activities

ITCS Framework

Over the summer, NERC developed the ITCS Framework, which provides a general approach to how NERC will tackle the analytical work that is crucial to the future of our industry. The study will assess the currently available transfer capability between neighboring areas and the future need for additional transfer capacity to ensure reliability under various system conditions, including extreme weather and other wide-area implications.

The ITCS Framework provides an approach for engaging with executive leadership, Regional Entities, and industry, including the creation of an ITCS Advisory Group, throughout the lifecycle of the project. The project plan highlights the activities in each of the project's three phases (Phases 0–2). Also included in the ITCS Framework is the project management structure, the technical study approach, and risk management and analysis plans.

Advisory Group

The ITCS Advisory Group was established in October to provide input on study design, execution, and recommendations. The group's members represent diverse industry expertise across regional transmission planning areas in North America, including representatives from stakeholders in each Regional Entity footprint and Canada. Canadian representation on this group and the inclusion of Canada in the modeling is key to getting a thorough and accurate account of North American transfer capability. Among other details, a scoping document highlights member roles and activities, deliverables, and meeting schedule.

The group's first meeting is scheduled for October 31. Agenda items include study scope, role of the Advisory Group, review of the project plan and deliverables, and Advisory Group schedule.

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Next Steps

Transmission Assessment Manager: NERC is pleased to announce that Saad Malik, formerly director of Reliability Assessment at WECC, is joining the team as the manager of Transmission Assessment, effective October 30. Malik has more than 20 years of experience in the electric industry, including as director of Engineering at Peak RE and as lead electrical engineer at Jacobs Canada. In this new role, Malik will support a broad range of transmission reliability studies, including the ITCS, leading a team of power system engineering and analysis experts.

ITCS Framework and Technical Scope: At their first meeting, project status and the latest scoping design will be shared with the ITCS Advisory Group part of Phase 0 of the project. More input will be sought from the ITCS Advisory Group in the coming weeks as the technical teams finalize the study scope and begin scenario development and case creation.

Study Schedule

Phase 0: Study Prep

- Define study scope, assumptions, senarios
- Stakeholder engagement
- Data requests
- Build study cases and scenarios for transfer capability analysis

Phase 1: Analysis

- Leverage LTRA to identify generation deficient and surplus areas
- Perform transfer capability analysis
- Identify thermal, voltage and stability limits (Total Transfer Capability)

Phase 2: Recommendations

- Define metrics for identification of “prudent transmission additions” based on reliability
- Draft final recommendations

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