Functional Mapping Guidance

WECC maps functional relationships to ensure the Bulk Electric System (BES) is reliable. Each functional relationship is based on the performance of tasks related to the two functions in that relationship.

WECC uses the functional mapping process to ensure that all areas have registered entities to perform the duties and tasks identified in and required by NERC Reliability Standards. Establishing a functional mapping relationship only confirms who the parties are in a functional relationship; it does not transfer any compliance responsibility from one entity to another. Information collected in the process helps WECC to identify unseen gaps in functional relationships and to populate each entity's Inherent Risk Assessment (IRA).

Planning Relationships

GO to TP

PURPOSE: To ensure each Generator Owner (GO) has identified the Transmission Planner (TP) to which it must give information on real power and reactive power capability (gross and net) and synchronous condenser reactive power capability to assess BES reliability. The GO also gives generator information and unit maintenance schedules to the TP.

REQUIREMENT: This relationship is required by MOD-025-2: Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability. It is the responsibility of the GO to demonstrate it has correctly identified and provided required data to its TP.

TO to TP

PURPOSE: To ensure each Transmission Owner (TO) has identified the TP that will assess the long-term (generally one year and beyond) reliability of its TO area, as required by the NERC Rules of Procedure. The TO is responsible for coordinating with the TP to connect with the BES. The TO also receives approved transmission expansion plans from the TP. The TO gives transmission maintenance, construction, and expansion changes and plans to the TP.

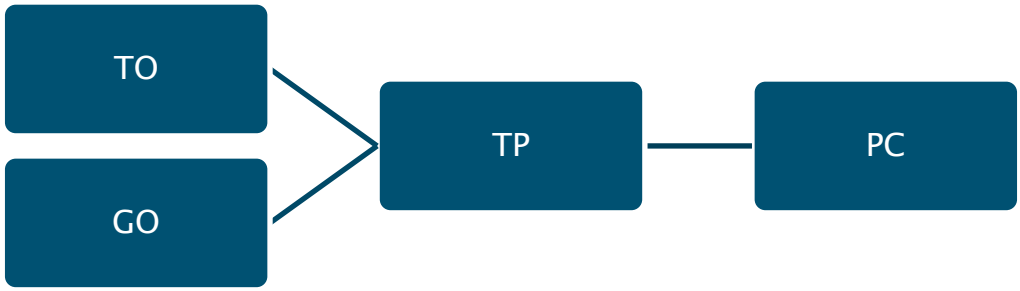
REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.3, states that for all geographical or electrical areas of the BPS, NERC will ensure that all transmission facilities of the BPS are the

responsibility and under the control of one TP, Planning Coordinator (PC), and Transmission Operator (TOP).

TP to PC

PURPOSE: To ensure each TP has identified a PC that must coordinate, integrate, facilitate and evaluate transmission facility and service plans and resource plans within a PC area and coordinates those plans with adjoining PC areas. The TP reports on and coordinates its BES expansion plan implementation with affected PCs.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.3, states that for all geographical or electrical areas of the BPS, NERC shall ensure that all transmission facilities of the BPS are the responsibility and under the control of one TP, PC, and TO.



Operating Relationships

GOP to TOP

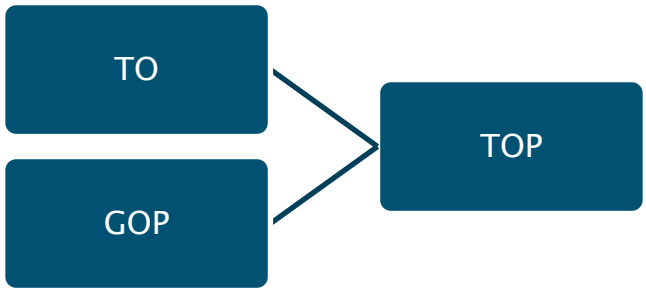
PURPOSE: This relationship ensures each GOP has appropriately identified a TOP to provide the operating information and availability status of generating units to the TOP, as well as the status of automatic voltage or frequency regulating equipment. It also ensures the GOP has a relationship with the TOP that will provide notification of transmission system problems.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.4, states that for all geographical or electrical areas of the BPS, the registration process shall ensure that all generators are under the responsibility and control of one Balancing Authority (BA). The TOP is subsequently mapped to the BA to ensure that all generators are under the responsibility and control of a single BA.

TO to TOP

PURPOSE: This relationship ensures each TO has identified a certified TOP responsible for the real-time operating reliability of the transmission assets of the TO under its purview. The TO must identify the right TOP to ensure that the transmission facility ratings, maintenance, construction plans, schedules, and reactive resources are given to the correct TOP.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.3, states that for all geographical or electrical areas of the BPS, NERC will ensure that all transmission facilities of the BPS are the responsibility and under the control of one TP, PC, and TOP.



Balancing Relationships

GO to GOP

PURPOSE: To ensure each GO has identified a registered Generator Operator (GOP) that operates generating Facility(ies) and performs the functions of supplying energy and reliability-related services.

REQUIREMENT: NERC's Rules of Procedure, Section 500 1.4.4, states that for all geographical or electrical areas of the Bulk Power System (BPS), NERC shall ensure that all generators are under the responsibility and control of a single BA. The GOP is subsequently mapped to the BA to ensure that all generators are under the responsibility and control of a single BA.

GOP to BA

PURPOSE: To ensure each GOP has identified a BA as required by the NERC Rules of Procedure. The GOP must give generation commitment plans, requested amount of reliability-related services, as well as the operating and availability status of its generating units, to the BA. The GOP must also adjust real and reactive power as directed by the BA.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.4, states that for all geographical or electrical areas of the BPS, the registration process will ensure that all generators are under the responsibility and control of one BA.

TOP to BA

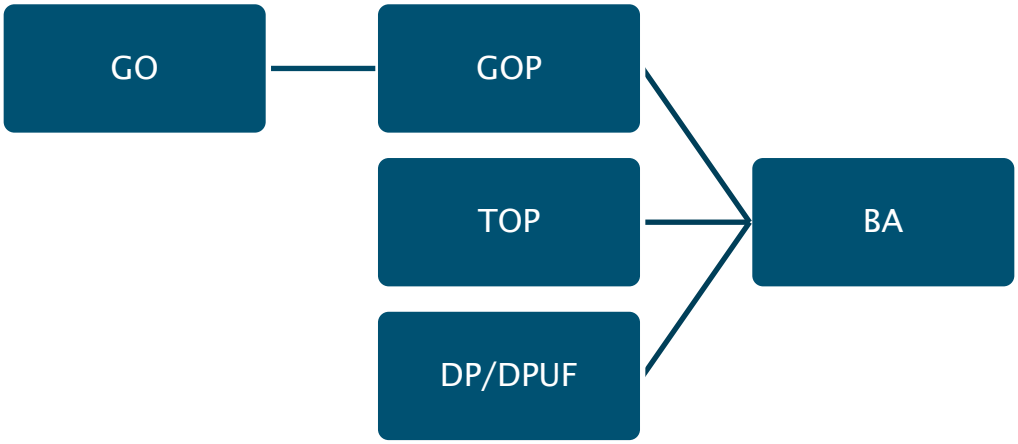
PURPOSE: To ensure each TOP has designated a BA with which it coordinates its restoration plans. The TOP must provide real-time operations information to the BA. The TOP also implements flow control device operations as directed by the BA for those ties under the TOPs purview.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.4, states that for all geographical or electrical areas of the BPS, the registration process shall ensure that all generators are under the responsibility and control of one BA.

DP or DPUF to BA

PURPOSE: To ensure each Distribution Provider (DP) or Underfrequency Load Shedding (UFLS) Only Distribution Provider (DPUF) has identified the proper BA. WECC also uses this information to ensure registered entities responsible for UFLS have identified the BA responsible for directing UFLS actions.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.4, states that for all geographical or electrical areas of the BPS, the registration process will ensure that all loads and generators are under the responsibility and control of one BA.



Reliability Coordination Relationships

BA to RC

PURPOSE: To ensure each BA has designated an Reliability Coordinator (RC) as required by the NERC Rules of Procedure. The BA also receives reliability evaluations and dispatch adjustments from the RC to prevent exceeding limits.

The BA must give real-time operational information for monitoring, as well as confirmed interchange and generation dispatch to the RC. The BA must submit integrated operational plans and system balancing information to the RC for reliability evaluation. The BA must carry out corrective actions and emergency procedures as directed by the RC, such as re-dispatching to direct GOPs for congestion management.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.2, states that for all geographical or electrical areas of the BPS, the Registration process will ensure that all BAs and TOPs are under the responsibility of one RC.

TOP to RC

PURPOSE: To ensure each TOP has designated a RC to ensure reliability required by the NERC Rules of Procedure. The TOP works with the RC to—

- Define its Total Transfer Capabilities and System Operating Limits;
- Develop contingency plans; and
- Monitor operations of the transmission facilities within the TOP's area of control and as directed by the RC.

The TOP must also send facility and operating information to the RC.

REQUIREMENT: The NERC Rules of Procedure, Section 500 1.4.2, states that for all geographical or electrical areas of the BPS, the registration process will ensure that all BAs and TOPs are under the responsibility of one RC.