**Function — Transmission Operations**

**Definition**
Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.

**Tasks**
1. Monitor all reliability-related parameters within the reliability area.
2. Monitor the status of and safely operate facilities classed as transmission assets, which include: the transmission lines connecting a generating plant to the transmission system, associated protective relaying systems and Special Protection Systems.
3. Enter transmission facilities maintenance schedules into OPS1 outage scheduler.
4. Provides real-time operations information to the Reliability Coordinator and Balancing Authority.
5. Operate within system limitations such as System Operating Limits and Total Transfer Capabilities.
6. Develop emergency procedures.
7. Implement emergency procedures. [Your entity can insert specific emergency tasks related to these procedures.]
   - Coordinates and implements load shedding with, or as directed by, the Reliability Coordinator
   - Directs Distribution Providers to shed load if needed to ensure reliability within the Transmission Operator Area
8. Develop system restoration plans.
9. Implement system restoration plans.
   - Directs Balancing Authorities and Distribution Providers to implement system restoration plans.
10. Operate within established Interconnection Reliability Operating Limits.
11. Perform reliability analysis (actual and contingency) for the Transmission Operator Area.
12. Implements flow control device operations for those ties under the Transmission Operator’s purview as directed by the Balancing Authorities or Reliability Coordinator. [If this is applicable to your entity, ensure that your procedure is adequate to cover this job task.]
13. Monitor and deploy reactive resources to maintain transmission voltage within defined limits.
15. Direct and/or control all transmission switching.
16. Utilize proper three-way communication when issuing and following directives.
17. Directs Generator Operators to respond to transmission system problems (e.g., voltage limitations or equipment overloads that may affect generator operations).
18. Requests Reliability Coordinator to assist in mitigating equipment overloads (e.g., redispatch, transmission loading relief).
19. Receives and takes necessary action in response to reliability alerts from Reliability Coordinator.
20. Coordinates transmission maintenance plans as directed by the Reliability Coordinator and as permitted by agreements. [Need to determine if this task belongs on the system operator list?]
21. Determines amount required and arranges for reliability-related services from Generator Operators to ensure voltage support (e.g., reactive supply from generation resources) in coordination with (or under the direction of) the Reliability Coordinator.
22. Receives operating and availability status of generating units from Generation Operators including status of automatic voltage regulators.
Responsible Entity — Transmission Operator

Introduction to the Transmission Operator

The Transmission Operator is responsible for the real-time operating reliability of the transmission assets under its purview, which is referred to as the Transmission Operator Area. The Transmission Operator has the authority to take certain actions to ensure that its Transmission Operator Area operates reliably.

The Transmission Operator and Reliability Coordinator have similar roles with respect to transmission operations, but different scopes. The Transmission Operator scope is narrower than the Reliability Coordinator, and the Transmission Operator does not necessarily “see” very far beyond its own boundaries. Therefore, the Transmission Operator can calculate System Operating Limits, but the Model does not require the Transmission Operator to calculate Interconnection Reliability Operating Limits, which requires the wider scope of the Reliability Coordinator.

Relationships with Other Responsible Entities

Ahead of Time

1. Coordinates restoration plans with Reliability Coordinator, Transmission Operators, Balancing Authorities, and Distribution Providers. [not performed at the system operator level]
2. Receives maintenance requirements and construction plans and schedules from the Transmission Owners and Generation Owners. [not performed at the system operator level]
3. Receives Interconnection Reliability Operating Limits as established by the Reliability Coordinator. [not performed at the system operator level]
4. Receives reliability evaluations from the Reliability Coordinator. [not performed at the system operator level]
5. Develops agreements with adjacent Transmission Operators for joint transmission facilities. [not performed at the system operator level]
6. Coordinates transmission maintenance plans as directed by the Reliability Coordinator and as permitted by agreements.
7. Defines Total Transfer Capabilities and System Operating Limits based on facility information provided by the Transmission Owners and Generator Owners and assistance from Reliability Coordinator. [not performed at the system operator level]
8. Determines amount required and arranges for reliability-related services from Generator Operators to ensure voltage support (e.g., reactive supply from generation resources) in coordination
with (or under the direction of) the Reliability Coordinator.

9. Develops contingency plans, and monitors operations of the transmission facilities within the Transmission Operator Area control and as directed by the Reliability Coordinator. [not performed at the system operator level]

10. Provides maintenance schedules and construction plans to Reliability Coordinator and Transmission Planner. [not performed at the system operator level]

11. Provides facility and operating information to the Reliability Coordinator. [not performed at the system operator level]

12. Provides to the Transmission Planner information on the capability to curtail (reduce) and shed load during emergencies. [not performed at the system operator level]

13. Provides Total Transfer Capabilities and System Operating Limits to, and coordinates Available Transfer Capability with, Transmission Service Provider. [not performed at the system operator level]

14. Receives operating and availability status of generating units from Generation Operators including status of automatic voltage regulators.

15. Develops operating agreements or procedures with Transmission Owners. [not performed at the system operator level]

**Real Time**

1. Coordinates and implements load shedding with, or as directed by, the Reliability Coordinator.

2. Directs Distribution Providers to shed load if needed to ensure reliability within the Transmission Operator Area.

3. Provides real-time operations information to the Reliability Coordinator and Balancing Authority.

4. Notifies Generator Operators of transmission system problems (e.g., voltage limitations or equipment overloads that may affect generator operations).

5. Requests Reliability Coordinator to assist in mitigating equipment overloads. (e.g., redispatch, transmission loading relief).

6. Deploys reactive resources from Transmission Owners and Generator Owners to maintain acceptable voltage profiles.

7. Implements flow control device operations for those ties under the Transmission Operator’s purview as directed by the Balancing Authorities or Reliability Coordinator.

8. Receives and takes necessary action in response to reliability alerts from Reliability Coordinator.