



Registration and Certification

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Antitrust Admonition

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Notice of this meeting was posted on the Texas RE website and this meeting is being held in public. Participants should keep in mind that the listening audience may include members of the press, representatives from various governmental authorities, and industry stakeholders.



Upcoming Sessions

June 3 – History and Introduction to Texas RE

June 4 – Registration & Certification

June 5 – Intro to Align

June 6 – Risk-Based Approach to Reliability

June 10 – Foundations of CIP Programs

June 11 – Foundations of O&P Programs

June 12 – Navigating Noncompliance Resolutions

June 13 – NERC Data Collection, Events Analysis, and Guidelines

June 17 – Reliability 201: CIP













June 18 – Reliability 201: O&P

June 24 – Reliability 201: CMEP Feedback Loop

June 25 – Reliability 201: Compliance in Align Walkthrough

June 25 – Reliability 201: Reliability Services

JUNE 2024

SUN	MON	TUE	WED	THU	FRI	SAT
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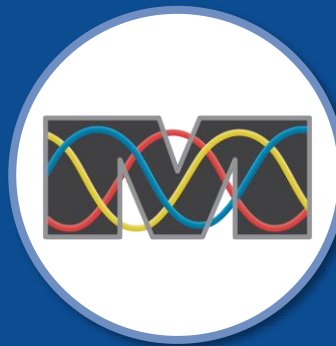


Upcoming ERO Enterprise Events



May - July, 2024

GADS Wind & Solar Template
and Application Training



June 5, 2024

NERC Certification &
Certification Review Process



June 10, 2024

Technical Talk with RF



slido

Product

Solutions

Pricing

Resources

Enterprise

Log In

Sign Up

Joining as a participant?

Enter event code

Join an existing event

#TXRE

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Agenda

Registration

CORES

Certification

Resources



Defining Registration

Identifies and Registers Bulk Power System (BPS) Owners, Operators, and Users

Responsible for Performing Specific Function(s)

Accountable for Compliance with NERC Reliability Standards

- Registered entities can face penalties or sanctions for noncompliance



Who is Required to Register?

Appendix 5B – Statement of Compliance Registry | Appendix 2 – Definitions Used in the ROP




- ☐ Bulk Electric System (BES) definition establishes element inclusion and exclusion
- ☐ Registry criteria applies the BES definition to owners and operators
- ☐ Registry criteria also includes Distribution Providers who serve load above 75 MW at a single point of interconnection



Who is Required to Register?

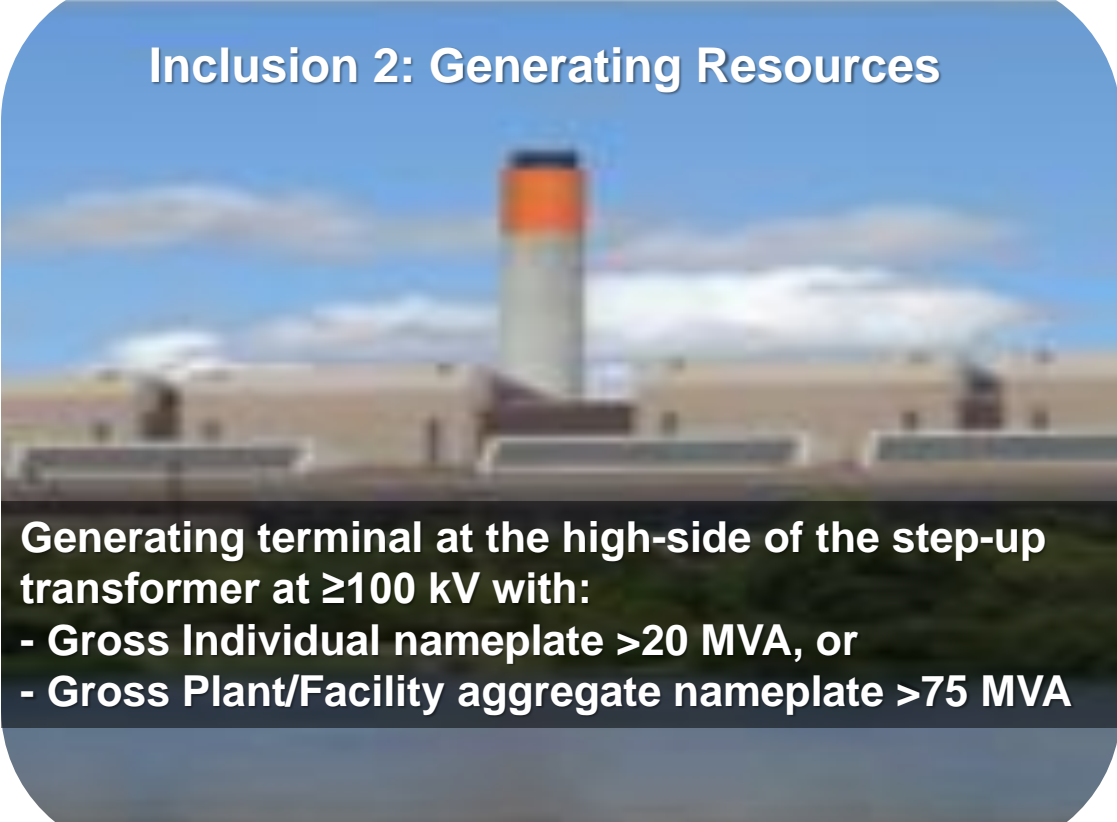
Appendix 2 – Definitions Used in the ROP

Inclusion 1: Transmission Resources



Transformers with the primary terminal and at least one secondary terminal operated at ≥ 100 kV

Inclusion 2: Generating Resources



Generating terminal at the high-side of the step-up transformer at ≥ 100 kV with:

- Gross Individual nameplate > 20 MVA, or
- Gross Plant/Facility aggregate nameplate > 75 MVA

Inclusion 3: Blackstart Resources

Identified in the Transmission Operator's restoration plan

Who is Required to Register?

Appendix 2 – Definitions Used in the ROP

Inclusion 4: Dispersing Power Producing Resources (small-scale generation)

- Individual resources, and
- System(s) designed primarily for delivering capacity from the point where those resources aggregate to >75 MVA (gross nameplate rating) at 100 kV or above

Inclusion 5: Static or dynamic devices (excluding generators)

Dedicated to supplying or absorbing Reactive Power connected at 100 kV or higher, or through a dedicated transformer with a high-side voltage of 100 kV or higher, or through a transformer that is designated in Inclusion I1



Who is Required to Register? Inclusions and Exclusions

Inclusions and Exclusions Listed in Appendix 2

Example diagrams of BES inclusions and exclusions are available in BES Definition Reference Documents and ERO Enterprise CMEP Practice Guide: Application of the BES Definition to Battery Energy Storage Systems and Hybrid Resources.

[BES Definition Reference Document, V2, April 2014](#) | [BES Definition Reference Document, V3, August 2018](#)

[ERO Enterprise CMEP Practice Guide: Application of the BES Definition to Battery Energy Storage Systems and Hybrid Resources](#)

Processes exist for submittal and consideration of Exceptions and Materiality.

- Review Appendix 5A, Appendix 5B, and Appendix 5C.



Slido Question

True or False: All blackstart resources identified in a TOP's restoration plan are required to be NERC registered according to the NERC Rules of Procedure.

- A. True
- B. False



Registered Function Types in the Texas RE Region

Function Type	Definition
*Balancing Authority (BA)	The responsible entity that integrates resource plans ahead of time, maintains Load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real-time.
Distribution Provider (DP)	Provides and operates the “wires” between the transmission system and the end-use customer. For those end-use customers who are served at transmission voltages, the Transmission Owner also serves as the Distribution Provider. Thus, the Distribution Provider is not defined by a specific voltage, but rather as performing the distribution function at any voltage.
Distribution Provider UFLS (DP-UFLS)	A Distribution Provider entity shall be an Underfrequency Load Shedding (UFLS)-Only Distribution Provider if it is the responsible entity that owns, controls or operates UFLS Protection System(s) needed to implement a required UFLS program designed for the protection of the BES, but does not meet any of the other registration criteria for a Distribution Provider.
Generator Operator (GOP)	The entity that operates generating Facility(ies) and performs the functions of supplying energy and Interconnected Operations Services.
Generator Owner (GO)	Entity that owns and maintains generating Facility(ies).
Planning Authority (PA)/ Planning Coordinator (PC)	The responsible entity that coordinates and integrates transmission Facilities and service plans, resource plans, and Protection Systems.

***Must be NERC Certified before registering for function**

NERC RoP Appendix 5B – Statement of Compliance Registry



Registered Function Types in the Texas RE Region

Function Type	Definition
*Reliability Coordinator (RC)	The entity that is the highest level of authority who is responsible for the Reliable Operation of the BES, has the Wide Area view of the BES, and has the operating tools, processes and procedures, including the authority to prevent or mitigate emergency operating situations in both next-day analysis and real-time operations. The RC has the purview that is broad enough to enable the calculation of Interconnection Reliability Operating Limits, which may be based on the operating parameters of transmission systems beyond any Transmission Operator's vision.
Resource Planner (RP)	The entity that develops a long-term (generally one year and beyond) plan for the resource adequacy of specific Loads (customer demand and energy requirements) within a Planning Authority area.
Transmission Owner (TO)	The entity that owns and maintains transmission Facilities.
*Transmission Operator (TOP)	The entity responsible for the reliability of its local transmission system and operates or directs the operations of the transmission Facilities.
Transmission Planner (TP)	The entity that develops a long-term (generally one year and beyond) plan for the reliability (adequacy) of the interconnected bulk electric transmission systems within its portion of the Planning Authority area.
Transmission Service Provider (TSP)	The entity that administers the transmission tariff and provides Transmission Service to Transmission Customers under applicable Transmission Service agreements.

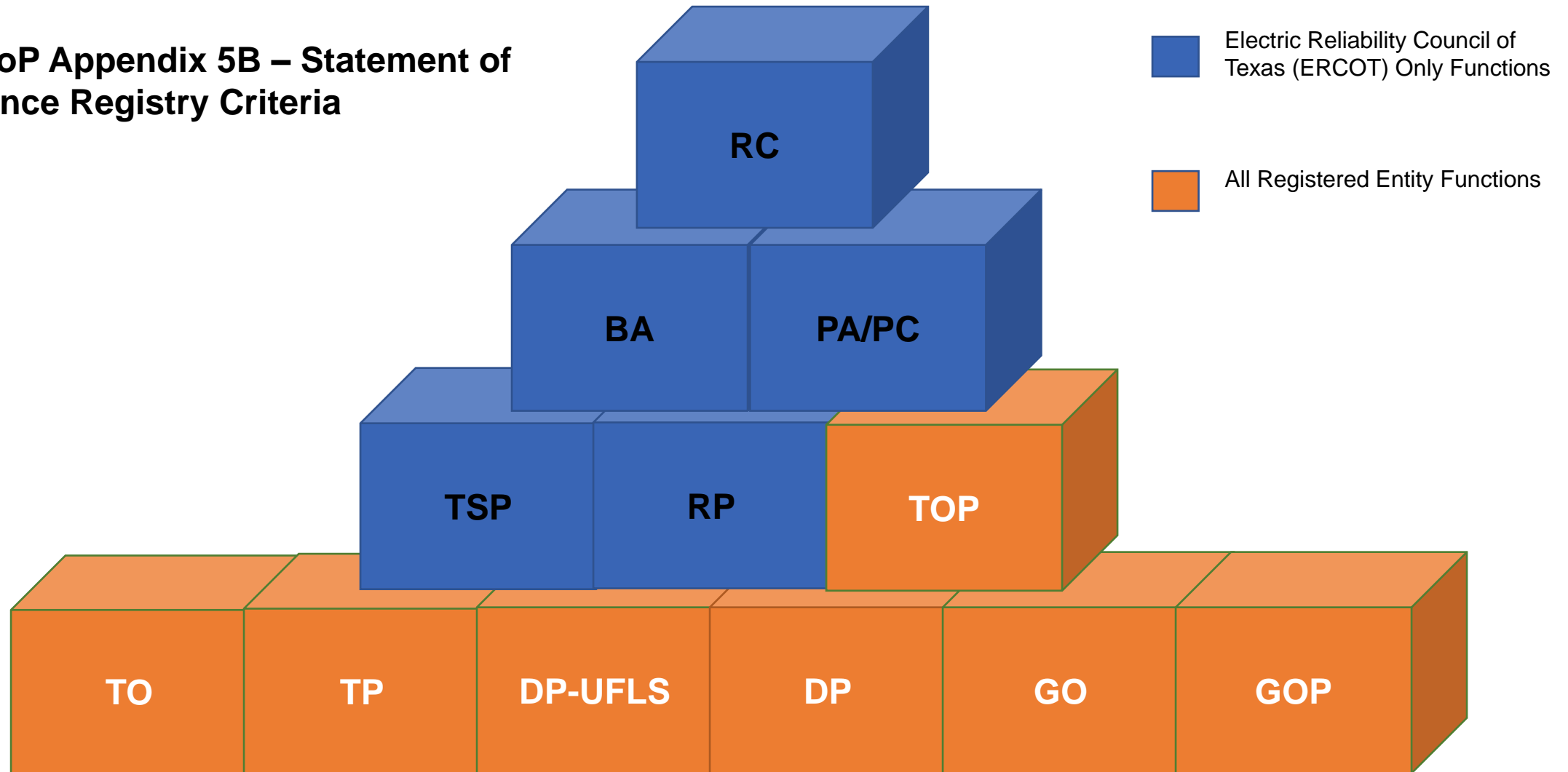
***Must be NERC Certified before registering for function**

NERC RoP Appendix 5B – Statement of Compliance Registry



Registration Functions

NERC RoP Appendix 5B – Statement of Compliance Registry Criteria



Entity Mapping Information

What is Entity Mapping?

The process of determining whether a Regional Entity's Footprint is being served by registered entities.

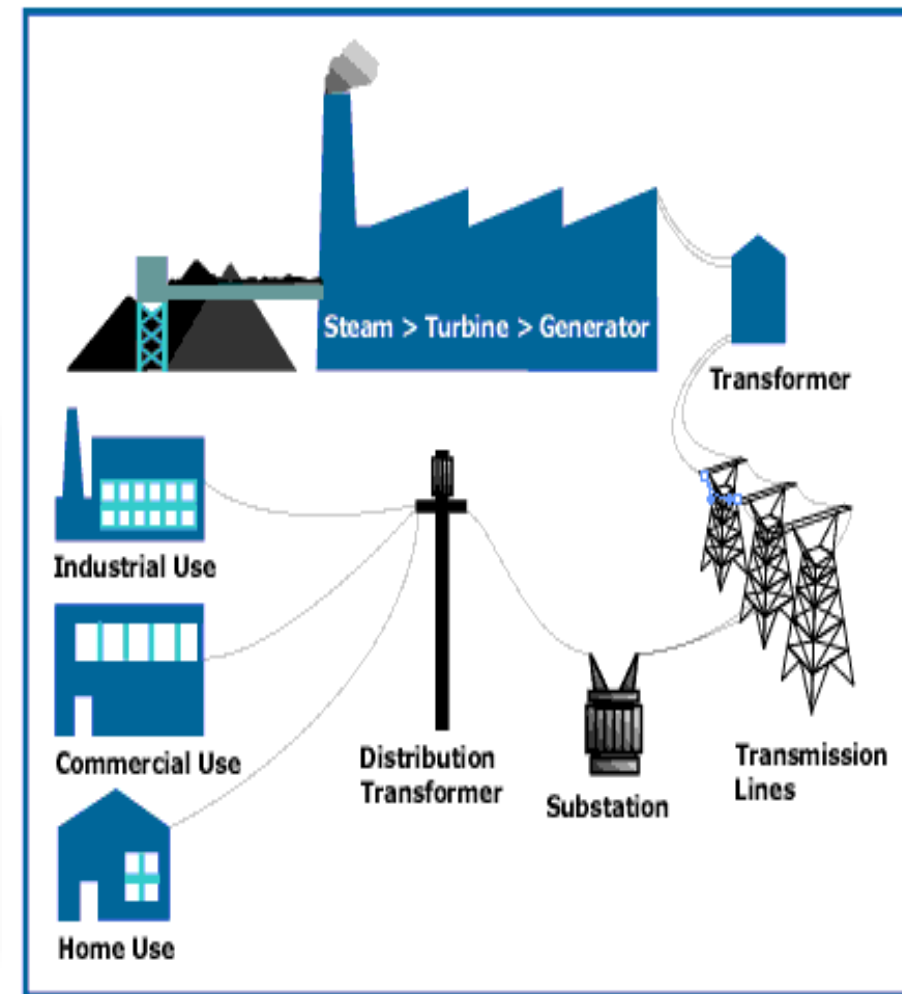
NERC RoP Appendix 5A – Organization Registration and Certification Manual

Why is Entity Mapping Required?

For all geographical or electrical areas of the BPS, the Registration process shall ensure that:

- (1) No areas are lacking any entities to perform the duties and tasks identified in and required by the Reliability Standards to the fullest extent practical.
- (2) There is no unnecessary duplication of such coverage or of required oversight of such coverage.

NERC RoP Section 500



Entity Mapping Process

In particular, the process shall:

- Ensure that all areas are under the oversight of one and only one RC
- Ensure that all BA and TOP entities are under the responsibility of one and only one RC
- Ensure that all transmission Facilities of the BPS are the responsibility and under the control of one and only one TP, PA, and TOP
- Ensure that all Loads and generators are under the responsibility and control of one and only one BA



Entity Mapping Relationships

Balancing Authority (BA)	>	RC						
Distribution Provider (DP)	>	BA	PC/PA	TOP	RC			
Distribution Provider - UFLS Only (DP-UFLS)	>	PC/PA						
Generator Owner (GO)	>	BA	GOP	PC/PA	RC	TO	TOP	TP
Generator Operator (GOP)	>	BA	RC	TOP				
Planning Coordinator and Planning Authority (PC/PA)	>	RC						
Transmission Owner (TO)	>	PC/PA	RC	TOP	TP			
Transmission Operator (TOP)	>	BA	RC					
Transmission Planner (TP)	>	PC/PA	RC					



Types of Registration

Single Entity

Joint Registration Organization (JRO)

Coordinated Functional Registration (CFR)

Joint Registration Organization (JRO)

Voluntary Written Agreement

- A JRO agreement occurs when
 - An entity is registered for a specific function and
 - Accepts all compliance responsibility of all applicable NERC Reliability Standards for itself and on behalf of one or more of its parties or related entities
- Texas RE reviews and approves JROs in the Centralized Organization Registration ERO System (CORES)
- NERC sends approval letter
- A JRO must be updated when any modifications occur

JRO Example – Distribution Provider

- Big Co-Op Company registers as a Distribution Provider (DP)
- Big Co-Op Company signs a JRO with Small Co-Op Company taking all compliance responsibility for itself and its unregistered parties, Small Co-Op Company
- This relationship eliminates the need for Small Co-Op Company to be registered as a DP

NERC RoP Sections 501 and 507



Coordinated Functional Registration (CFR)

Voluntary Written Agreement

- A CFR agreement occurs when
 - Two or more NERC registered entities share and divide responsibilities of the NERC Reliability Standards
- Texas RE reviews and approves CFR agreements in CORES to ensure there are no gaps or overlaps in responsibility between the parties
- NERC sends approval letter
- A CFR must be updated when any modifications occur (changes to applicable parties or standards)

CFR Example – Generator Operator

- Best Electric owns and operates a NERC registered facility
- Expert Energy also operates the NERC registered facility
- A CFR is established to identify who is responsible for compliance with each applicable Critical Infrastructure Protection (CIP) and Operations & Planning (O&P) standard requirement
- CFR matrix spreadsheets are posted on [NERC's website](#)

NERC RoP Sections 501 and 508



CORES

CORES Overview

The Centralized Organization Registration ERO System (CORES) launched on July 15, 2019, to provide consistency and alignment across the ERO for registration activities

The CORES platform enables entities to manage their registration information, contact information, and functional relationships from one application

The application is accessed through the ERO Portal (<https://eroportal.nerc.net/>)

Using CORES

New
Registration
Request

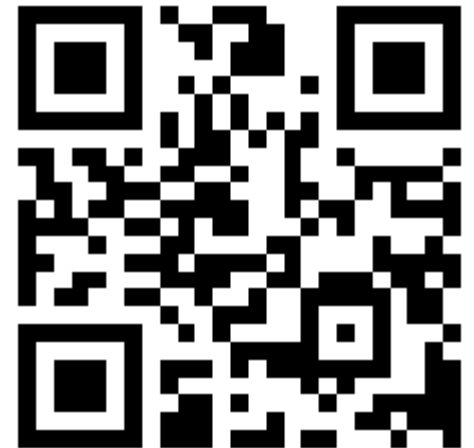
Changes to
Existing
Registration

CORES Training Videos

Slido Question

Through what platform are new registration requests submitted?

- A. Align
- B. CORES ←
- C. Raptor
- D. registration@texasre.org



Accessing CORES







Sign up for an ERO Portal account and complete Multifactor Authentication (MFA) steps

- **Entity Registration Request** – Any individual with an active ERO Portal account can submit a new registration application within CORES
- **My Entity** – NERC and Entity Admins must initially grant access rights to applicable entities










The screenshot shows the ERO Portal website at <https://eroportal.nerc.net/>. The page features a navigation bar with the NERC logo and a search bar. A dropdown menu is open under the 'My Entity' link, showing options: 'My Entity', 'Manage Entity Users', 'CORES' (highlighted with a red circle), 'Entity Application Access Requests', and 'Section 1600 Reporting Confirmation'. Other navigation links include 'Entity Registration Requests' (circled in red), 'NERC Membership List', 'CIP Reports', 'Help Desk', and 'NERC Membership'. The main content area displays a 'Welcome to the ERO Portal' message and three service tiles: 'SELF SERVICE ACCOUNT' (Change Password, Update Security Questions), 'VIEW MAILING LISTS & RESOURCES' (Access to Datastores and Applications), and 'REQUEST ACCESS' (Get Access to Resources & Mailing Lists).

CORES: Navigation Bar Information




New Entity Registration Navigation Bar

	Basic Information
	Upstream Holding Companies
	Contacts
	Registration Scopes
	Functional Mapping
	Comments and Attachments
	Submit Entity Registration Req

My Entity Navigation Bar

	Basic Information
	Upstream Holding Companies
	Contacts
	Entity Scopes
	Functional Mapping
	Coordinated Oversight
	CFR
	JRO
	Comments

The right navigation bar reflects the completion status of each element of the entity registration requests.

Navigation Status	Navigation Symbol
Incomplete	Gray Circle 
In Progress	Green and Gray Split Circle 
Complete	Green Check Mark 



New Registration Request

Submit an application within CORES one month prior to expected registration date.

Documentation needed may include:

- Resource Asset Registration Form (RARF)
- One-line Diagram(s)
- Interconnect Agreement(s)
- GO and GOP Asset Verification Form



- ☐ Once approved, NERC sends a Notice of Listing on the NERC Compliance Registry
- ☐ Texas RE sends a Welcome Packet including reporting requirements

[Submitting a New Registration Request in CORES](#)



Registration Date for New BES Generation Resources

Effective Registration Date

- Defined under Inclusions I2, I3, and I4
- Registration effective upon Commercial Operation Date (COD)
 - All initial testing and commissioning has been completed
 - Initiation date on which the Generator Owner can start producing electricity for sale (excludes sale of test power during initial testing)

- If initiated in stages/phases, registration will occur when Generation Resource achieves COD for an aggregate amount of generating resource(s) (gross nameplate rating) that is greater than the applicable threshold in the BES definition
- 100% compliance with all applicable Reliability Standards once registered



Report Registration Changes to Texas RE

At least 30 days prior to the effective date of any of the registration changes listed below, please contact Erin Quigley at 512-583-4926 or email registration@texasre.org.

Add/Remove a
Function

Deactivation/
Deregistration

Entity Function
Transfer

Entity Assets
Transfer/Merger/
Sale

Entity Name
Change

Consolidate NCR
Numbers

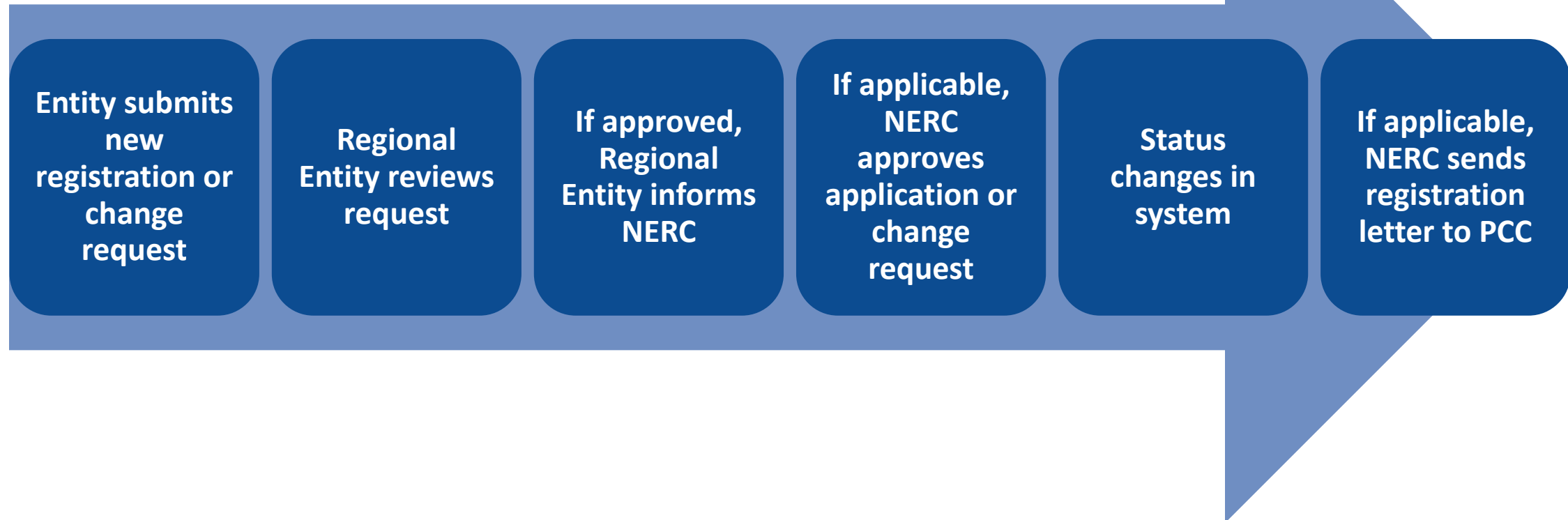
Change in
JRO/CFR

Documentation may be required via CORES.



Process Flow in CORES

Process for New Registration and Change Requests



Changing Contact Roles and Permission Rights in the ERO Portal

When to change contact roles and permission rights

- Compliance management or entity ownership changes
- Role and responsibility changes within organization
- User/contact leaves the company

Actions to perform

- Request access or change permission rights in the ERO Portal | [Pages 9 - 15](#)
- Change contact roles in CORES | [Pages 17 - 21](#)
- Open a [Help Desk](#) ticket to “Deactivate” the ERO Portal account

Note: Contact role changes will migrate over from CORES to Align within a day or so



Certification Process – RC, BA, or TOP

Certification

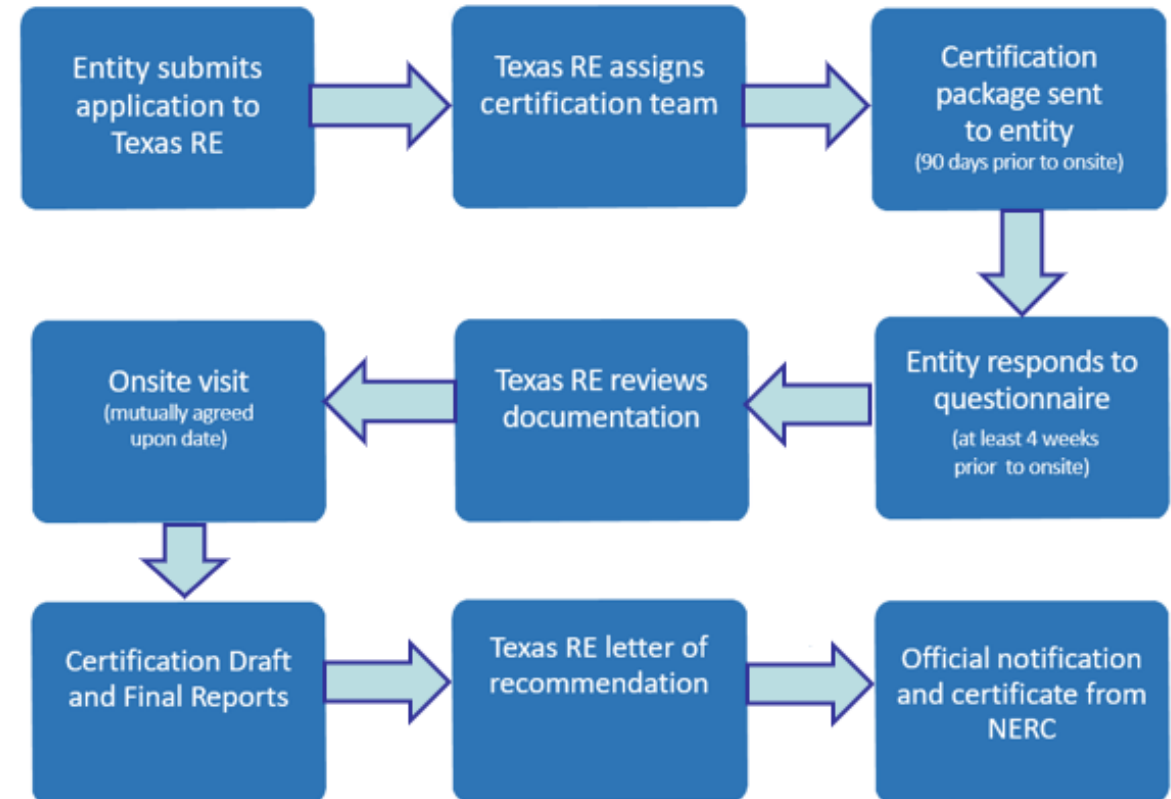
A Certification ensures that a RC, BA, and/or TOP can demonstrate they have the:

- Tools
- Processes
- Procedures
- Training
- Personnel

To perform the functions for which they intend to be registered.

Certification process must be completed within nine months (unless NERC approves alternate timeline).

The entity is required to start operation of its Area within 12 months of being NERC certified.



NERC RoP Section 500 and Appendix 5A – Organization Registration and Certification Manual

Appendix 5A, Section V: Certification Review Triggers

A Certification Review will be conducted when an already operating and certified RC, BA, or TOP makes certain changes. Items that are to be considered for a Certification Review include one or more of the following non-exhaustive list of changes from an entity's prior certification assessments.

- a.) Changes to registered entity's footprint* (including de-certification changes to existing JRO/CFR assignments or sub-set list of requirements)
- b.) Relocation of the Control Center
- c.) Modification of the Energy Management System (EMS) which is expected to materially affect CIP security perimeters or the System Operator's situational awareness tools, functionality, or machine interfaces

*This includes changes in ownership of BES Facilities, changes in the applicability of the BES Definition to a Facility, and newly installed BES Facilities.

Submit a [Certification Notification and Preliminary Questionnaire](#)



Slido Question

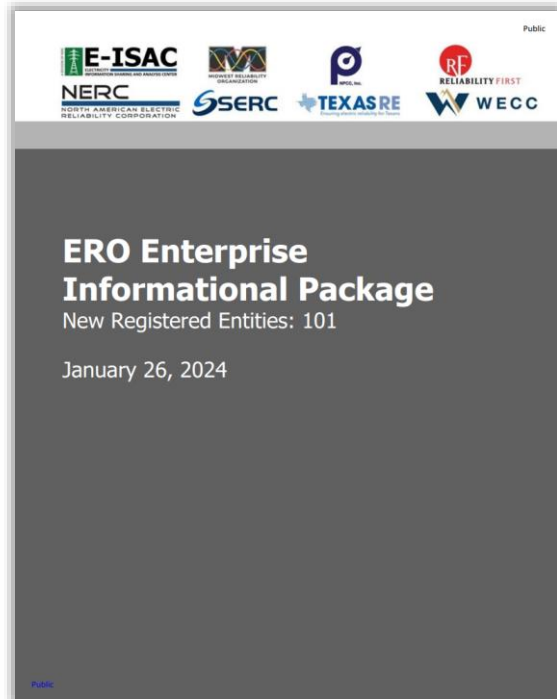
Which of the following would trigger a Certification Review for a BA, RC, or TOP?

- A. Changes to a registered entity's footprint
- B. Relocation of the Control Center
- C. Modification of the Energy Management System (EMS)
- D. All of the above – contact your applicable Regional Entity about all operational changes for an already operating and certified BA, RC, or TOP



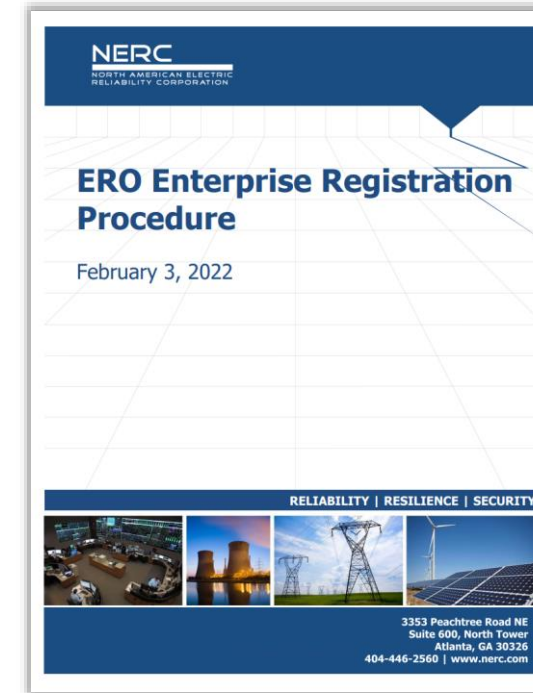
ERO Registration Documents

ERO Enterprise 101 Informational Package



Created to provide guidance on becoming a NERC registered entity and includes steps to complete as a newly registered entity

ERO Registration Procedure



Updated to incorporate a variety of previously issued materials into a single document and to conform to revised Rules of Procedure

Published on NERC's Registration [Webpage](#)



Texas RE Welcome Packet Information

Texas RE Welcome Packet



Welcome Packet

Welcome to the Texas RE Region. We look forward to working with you to maintain the reliability of the bulk power system (BPS) in our interconnection.

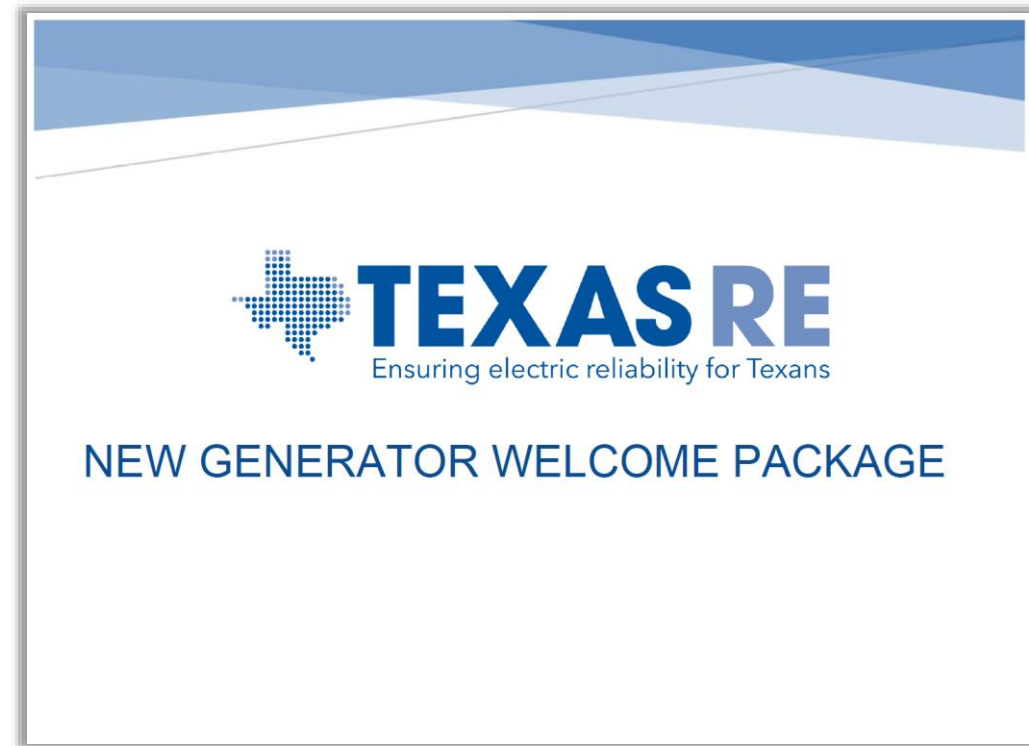
Ensuring electric reliability is no small task. To help you get started, we've created a short checklist of action items that will help you get involved and keep you up-to-date on reliability matters!

Recommended Action Items for Registered Entities

- ☐ Review the [Texas RE](#) and [NERC](#) websites.
- ☐ Join the [Texas RE listserv](#) to get Texas RE news in your inbox!
- ☐ Become a Texas RE Member if your company is not already. [Learn more here!](#)
- ☐ Review past announcements and newsletters on the [News](#) page.
Attend our next free training event. Check the [Texas RE calendar](#) to see what's coming up.
- ☐ Attend Board and MRC meetings. See our schedule of [upcoming meetings](#).
- ☐ Participate in a Regional working group. The NERC Standards Review Forum ([NSRF](#)) is a forum for collaboration and discussion on standards development projects. The ERCOT Critical Infrastructure Protection Working Group ([CIPWG](#)) is a forum for discussing CIP standards.
- ☐ Get an [ERO Portal](#) account. The ERO Portal is used to access the Centralized Organization Registration ERO System (CORES), the platform used across the ERO for registration activities. Learn more about CORES [here](#). The ERO Portal is also used to access [Align](#) and the [ERO Secure Evidence Locker](#) (SEL)
- ☐ Learn more about ERO Enterprise Registration Guidance. Review the [ERO Enterprise Information Package](#), the [ERO Enterprise Registration Procedure](#), and the [Texas RE Generator Welcome Package](#).
- ☐ Email nerc.alert@nerc.net to sign up for NERC Alerts.



Texas RE Generator Welcome Package



Registration and Certification Resources

Texas RE's Registration Website

- Registration and Certification Process Information
- Links to Registration and Certification Documentation

NERC's Organization Registration Website

- Registration Process and Guidance Documents
- NERC Compliance Registry Information | CFR and JRO Member Listings

NERC's Organization Certification Website

- Final Certification Reports
- Certification Process Documents



Contact



Erin Quigley

Manager, Registration and Certification Program

erin.quigley@texasre.org | registration@texasre.org

512-583-4926



The background of the slide features a blurred image of the Texas state flag on the left and a close-up of a wind turbine's hub and blades on the right. The blades are white with red tips. A dark blue rounded rectangle is centered over the image.

Questions?



TEXAS RE

Ensuring electric reliability for Texans

NERC Rules of Procedure Represented in Presentation

Document	Title
ROP	Rules of Procedure (with or without Appendices) Effective: August 17, 2021

Appendix 2	Definitions Used in the Rules of Procedure Effective: January 19, 2021
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Appendix 3A	Standard Processes Manual Effective: March 1, 2019
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Appendix 3B	Election Procedure for Members of NERC Standards Committee Effective: October 4, 2013
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Appendix 3D	Registered Ballot Body Criteria Effective: March 9, 2018
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Appendix 4A	Audit of Regional Entity Compliance Programs Effective: October 4, 2013
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Appendix 4B	Sanction Guidelines Effective: January 19, 2021
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Document	Title
Appendix 4C	Uniform Compliance Monitoring and Enforcement Program Effective: August 8, 2018

Appendix 4D	Procedure for Requesting and Receiving Technical Feasibility Exceptions to NERC Critical Infrastructure Protection Standards Effective: July 1, 2016
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Appendix 4E	Compliance Certification Committee Hearing Procedures, Hearing Procedures for Use in Appeals, and Mediation Procedures Effective March 1, 2019
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Appendix 5A	Organization Registration and Certification Manual Effective: January 19, 2021
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Appendix 5B	Statement of Compliance Registry Criteria Effective: January 19, 2021
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Appendix 5C	Procedure for Requesting and Receiving an Exception from the Application of the NERC Definition of Bulk Electric System Effective: January 19, 2021
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Appendix 8	NERC Blackout and Disturbance Response Procedures Effective: July 1, 2014
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NERC Rules of Procedure

- RoP, Section 500
- Appendix 2
- Appendix 5A
- Appendix 5B
- Appendix 5C



Who is Not Required to Register?

Exclusions Listed in Appendix 2

Exclusion 1 - Radial systems: A group of contiguous transmission Elements that emanates from a single point of connection of 100 kV or higher and:

- a) Only serves Load. Or,
- b) Only includes generation resources, not identified in Inclusions I2, I3, or I4, with an aggregate capacity less than or equal to 75 MVA (gross nameplate rating). Or,
- c) Where the radial system serves Load and includes generation resources, not identified in Inclusions I2, I3 or I4, with an aggregate capacity of non-retail generation less than or equal to 75 MVA (gross nameplate rating).

Exclusion 2 - A generating unit or multiple generating units on the customer's side of the retail meter that serve all or part of the retail Load with electric energy if: (i) the net capacity provided to the BES does not exceed 75 MVA, and (ii) standby, back-up, and maintenance power services are provided to the generating unit or multiple generating units or to the retail Load by a Balancing Authority, or provided pursuant to a binding obligation with a Generator Owner or Generator Operator, or under terms approved by the applicable regulatory authority.



Who is Not Required to Register?

Exclusions Listed in Appendix 2

Exclusion 3 - Local networks (LN): A group of contiguous transmission Elements operated at less than 300 kV that distribute power to Load rather than transfer bulk power across the interconnected system. LN's emanate from multiple points of connection at 100 kV or higher to improve the level of service to retail customers and not to accommodate bulk power transfer across the interconnected system. The LN is characterized by all of the following:

- a) Limits on connected generation: The LN and its underlying Elements do not include generation resources identified in Inclusions I2, I3, or I4 and do not have an aggregate capacity of non-retail generation greater than 75 MVA (gross nameplate rating);
- b) Real Power flows only into the LN and the LN does not transfer energy originating outside the LN for delivery through the LN; and
- c) Not part of a Flowgate or transfer path: The LN does not contain any part of a permanent Flowgate in the Eastern Interconnection, a major transfer path within the Western Interconnection, or a comparable monitored Facility in the ERCOT or Quebec Interconnections, and is not a monitored Facility included in an Interconnection Reliability Operating Limit (IROL).



Who is Not Required to Register?

Exclusions Listed in Appendix 2

Exclusion 4 - *Reactive Power devices installed for the sole benefit of a retail customer(s).*

Note - Elements may be included or excluded on a case-by-case basis through the Rules of Procedure exception process.

