Harmonizing IBR Interconnection Requirements in the West

Industry Advisory Group

Meeting # 3

IBR Requirements Enhancements – Industry Experience

July 17, 2025

WIRAB
Western Interconnection Regional Advisory Body

Meeting Logistics

Recording

This meeting is being recorded and **may be posted publicly**. By participating, you consent to your name, voice, and image being part of the recording.

How to Participate

Use the **"Raise Hand"** feature to ask questions or provide input

Feel free to use the **chat** for comments or clarifying questions

We will be using **Slido** later in the meeting to solicit feedback

Audio Etiquette

Everyone came into the meeting muted

Please **mute yourself** when not speaking

If joining by phone, please identify yourself in the chat

Materials & Follow-Up

Slides and materials will be shared after the meeting and available on the webpage

Contact information will be provided at the end for follow-up questions or comments

Outline

Introductions and Background	Overview
Technical Overview	Explore industry experience implementing IBR Requirements Preview Draft FIR Template Document and plan for upcoming meetings
Interactive Discussion and Q&A	Open Discussion and Slido Polls
Closing and Next Steps	Confirming upcoming meeting dates and schedule Preview of next meeting topics and expected deliverables

Introductions

Please Introduce Yourself in the Chat

- Name
- Organization / Company
- Role or Title
- How successful has your organization been at implementing specifications from IEEE-2800-2022?

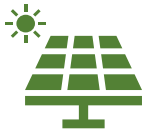
WIRAB's 2025 Strategic Initiatives

Please Introduce Yourself in the Chat

- Name
- Organization / Company
- Role or Title
- How successful has your organization been at implementing specifications from IEEE-2800-2022?

Transmission Planning (WestTEC)

Initiative 1: Advise WECC to work collaboratively with the Western Power Pool and Western stakeholders to develop an investment-grade transmission plan that effectively improves reliability in the Western Interconnection.



Inverter-based Resource Risk

Initiative 2: Advise WECC to work collaboratively with Western regulators and stakeholders to address and proactively mitigate risks associated with the uncoordinated interconnection of inverter-based resources in the Western Interconnection.

Inter-regional Transfer Capability

Initiative 3: Advise WECC regarding a process for ongoing assessments and prudent upgrades for inter-regional transfer capabilities in the Western Interconnection to ensure reliable power flow when the system is stressed.

Extreme Weather Event Analysis

Initiative 4: Advise WECC to conduct a systematic review of recent extreme weather events that have tested the grid, focusing on the challenges of maintaining grid reliability during increased demand, unexpected outages, system stress, and near-miss incidents in the Western Interconnection.

Grid Enhancing Technologies for Reliability

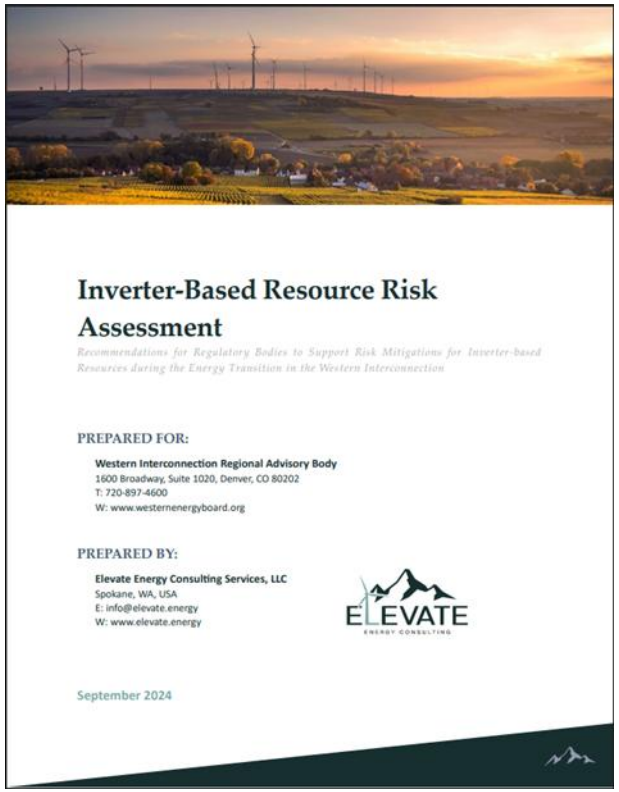
Initiative 5: Advise WECC to assess the reliability implications of innovative grid solutions used to maximize the potential of the existing transmission system as utilities modernize the grid in the Western Interconnection.

Inverter-Based Resource Risk Assessment Report

Please Introduce Yourself in the Chat

- Name
- Organization / Company
- Role or Title
- How successful has your organization been at implementing specifications from IEEE-2800-2022?

- **Developed by Elevate Energy Consulting**
- **Report and Recommendations Endorsed by WIRAB in 2024.**
  - WIRAB to collaborate with WECC and other key stakeholders to prioritize and implement the recommendations outlined in this report.
- **Key Recommendation:** Create a standardized template for FIR enhancements, ideally implementing IEEE 2800 standard.

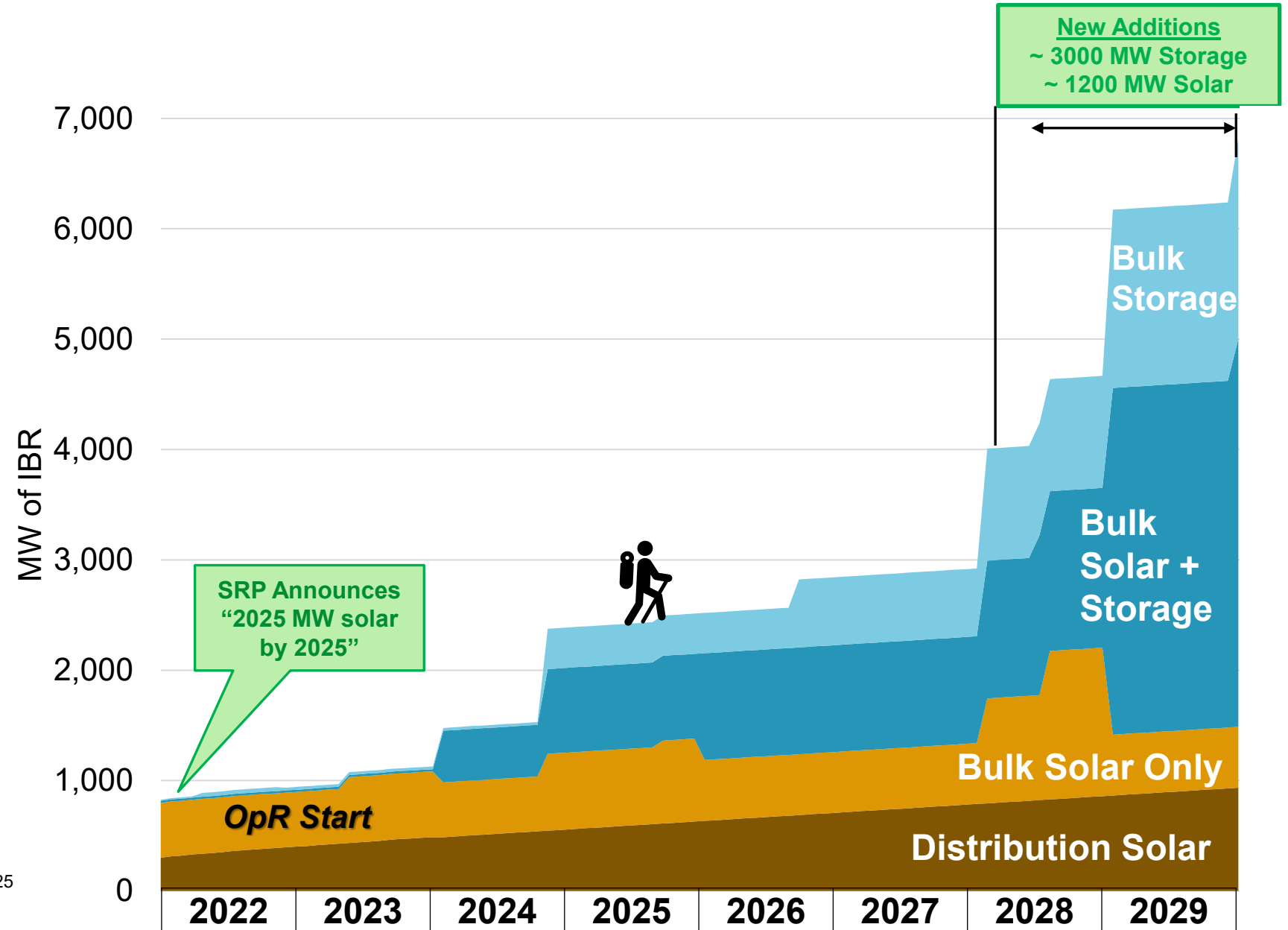


SRP's Technical Requirements for IBRs

Scott Anderson, Director Operational Readiness, SRP

7-17-2025

Today – IBRs Integrated! More to Come!



2600 MW!

In last 2 years

1500 MW

1100 MW

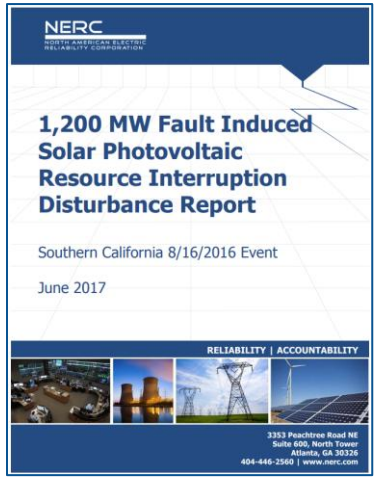
Operational Readiness Strategy & Projects

OpR

1A Bolster testing 1B EMS/AGC enablement 1C/D EMT modeling 2 IBR PPA improvements 11 TGO/DOC coordination 23 IBR interconnection requirements — 100%	Fully Leverage New Resource Capabilities	3 / 4 / 13 Value stream analysis — 80%	10 TGO renewables desk — 70%	12 Inverter tech standards & system protection — 45%	24 IBR tech & performance requirements — 5%	27 IBR modeling improvements — 0%
8 Displays 9 Intra-hour solar variability 18 System power quality & inertia 19 EIM process & tools 20 Software ecosystem 22 IBR control issues/mitigation — 100%	Software & Situational Awareness	8 IBR data, communications & displays — 99%	17 Control room IBR video wall — 54%			
	Economic Dispatch with Solar + Storage	14 Fleet ramping capability analysis — 99%	25 Metrics, contract compliance & settlements — 25%			
16 Load forecasting improvements — 100%	Advanced Forecasting Tools	6 / 7 Solar forecasting tools & integration — 99%				
21 Improve IBR PPA deployment — 100%	Enabling Projects	26 IBR training — 25%				
5 Implement flex reserves and governance 15 System variability analysis — 100%	Risk Adjusted Reserve Requirements					

IBR Technical Requirements Journey

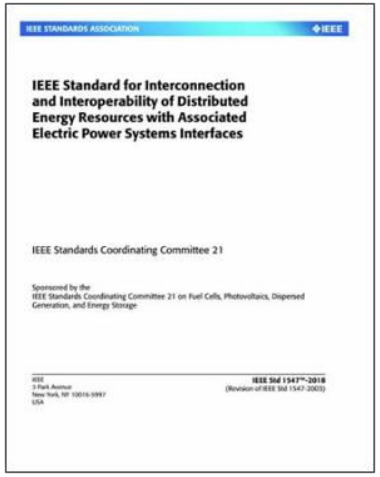
2016+



NERC Reports

Blue Cut Report
Odessa Report
IBR Strategy
IBR Recommendations

2018



IEEE 1547

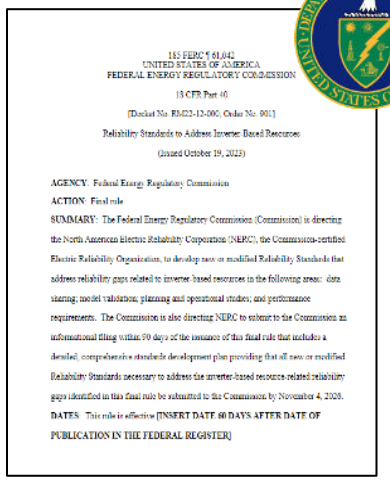
Distributed Energy Resources connecting to Distribution

2022

IEEE 2800

IBRs connecting to Transmission

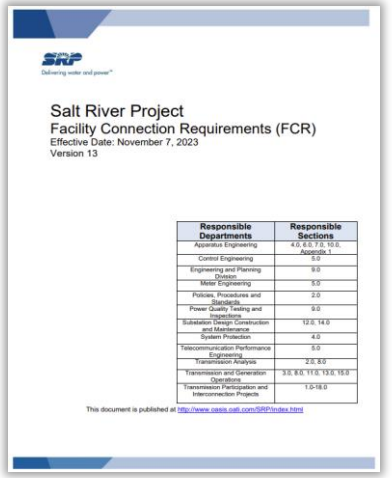
2023-2026



FERC Order 901

Directing NERC to develop new IBR stds

2023



SRP Requirements

1. Power Purchase Agreements (OpR 2)
2. Facility Connection Requirements (OpR 23)

IBR Technical Requirements Journey in OpR Context

OpR 2a – IBR PPA Improvements

IBR Power Purchase Agreements Technical Requirements

OpR 12 – Inverter Technical Standards

Review of IEEE 2800

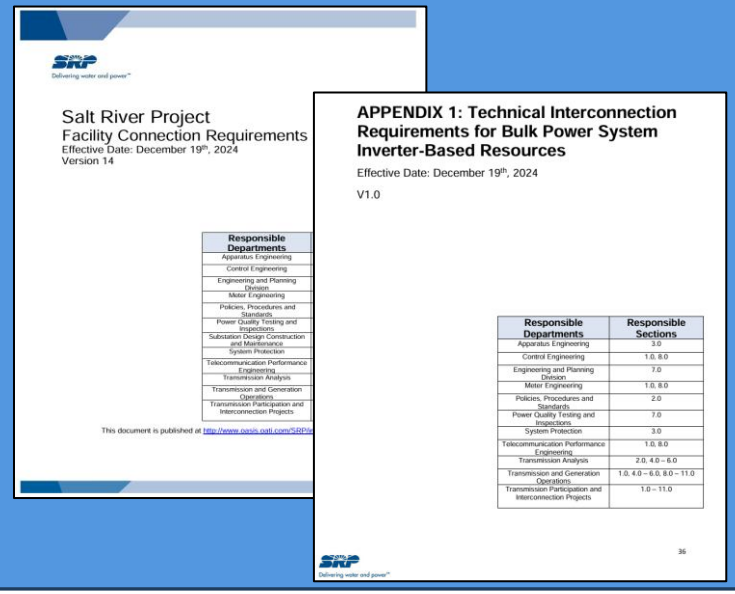
OpR 23

Peer Utility Benchmarking

OpR 23

Pain points from past interconnection projects

OpR 23 IBR Technical Requirements



- **FCR is referenced in SRP's Large Generator Interconnection Process/Agreement**
- **Appendix 1 is for IBRs**
- **Documents are publicly available on OASIS**

SRP Approach to IEEE 2800: "Hybrid Integration"

General Reference
(Cite IEEE 2800 in Full)

"Point to standard in existing requirements"

- ✓Minimal effort to adopt
- × **Missing system-specific (TO) details**
- × Lacks clarify and specificity
- × **Leaves gaps in implementation and understanding**
- × IBR owners must purchase standard

Detailed Reference
(Cite Specific IEEE 2800 Clauses)

"Point to specific clauses in existing requirements"

- ✓Targeted enhancements
- ✓Allows phased approach
- × **Missing system-specific (TO) details**
- × IBR owners must purchase standard

Hybrid Integration
(Organic Integration)

"Point to specific clauses and add language for clarity in existing requirements"

- ✓Targeted enhancements
- ✓Allows phased approach
- ✓Allows adaptation, if
- ✓**Specific and clear**
- ✓Enables conformity language additions
- × IBR owners must purchase standard
- × More work for AGIR

Detailed Spec
(Recreate Specs of IEEE 2800)

"Recreate requirements language entirely"

- ✓Targeted enhancements
- ✓Allows phased approach
- ✓Allows adaptation and tailored solution for specific rules framework
- ✓Enables conformity language
- × **Significant work and duplication for AGIR**
- × Copyright concerns

Facility Connection Requirement Summary (OpR 23)

Requirement Category		Description
1	**Plant Models**	Requirements for EMT Models, short-circuit models, and other models SRP needs from the customer for transmission and protection studies
2	**Reliability**	Defines plant capability and operation requirements for voltage control, frequency response, and abnormal grid conditions
3	**Metering & Monitoring**	Requirements for interconnection meters, device telemetry collected from the site, and monitoring for disturbances
4	**Testing & Commissioning**	Procedures to validate site capabilities and equipment prior to declaring COD
5	**General**	Requirements for naming approval and additional language for power quality requirements

thank you!

Technical Requirements for Interconnection to the BPA Grid

Revision 9 Updates
(Network Planning Standard: STD-N-000001-00-09)

WIRAB IAG: Harmonizing IBR Interconnection Requirements
Industry Advisory Group (IAG) Meeting
July 17, 2025

Dmitry Kosterev (Transmission Planning)
Eric Heredia (Transmission Planning)

Technical Requirements for Interconnection STD-N-000001 Revision 9

- Updates to BPA's Technical Requirements for Interconnection (STD-N-000001 Revision 9) are focused on specifications for inverter-based resources (IBRs) and improving clarity of performance requirements for all interconnections.
- IBR technology continues to evolve.
- The requirements are expected to change periodically based on technology changes, system requirements, and evolving standards.

New Revisions will be posted on the BPA Interconnection Site

https://www.bpa.gov/energy-and-services/transmission/interconnection

Updates for IBRs

- BPA STD-N-000001 Revision 9 applies selected clauses from the IEEE Standard for Interconnection and Interoperability of Inverter-Based Resources Interconnecting with Associated Transmission Electric Power Systems (IEEE Std 2800-2022).
- The IEEE Std 2800 clauses applied shall be in addition to the BPA requirements *such that an IBR facility meets the IEEE Std 2800 and the BPA STD-N-000001 requirements*.

Updates for IBRs

IEEE Std 2800 clauses applicable to IBRs

4. General interconnection technical specifications and performance requirements

5. Reactive power-voltage control requirements within the continuous operating region

6. Active-power—frequency response requirements

7. Response to TS abnormal conditions (in addition to NERC PRC-024)

10 Modeling data
Annex G, Recommendation for modeling data, shall apply to inverter-based resources

For additional information see IEEE Std 2800-2022:
https://ieeexplore.ieee.org/servlet/opac?punumber=9762251

Updates for IBRs

Battery Energy Storage System (BESS)

- BPA requires Grid Forming Control (GFM) for IBR connected BESS.
- This includes:
  - Standalone BESS
  - BESS portion in AC-coupled hybrid plants
  - BESS portion in DC-coupled hybrid plants

System Strength

- BPA requires the short-circuit ratio (SCR) be 3 or higher for all POIs, for all lines in service and single branch outages.
- A single POI SCR calculation or a weighted SCR calculation may be applied where many new POIs in an area are being considered.
- On a case-by-case determination, an exception may be considered, allowing a POI with a SCR less than 3.

Reference Point of Applicability

Reference Point of Applicability (RPA) - The location where the interconnection and interoperability performance requirements apply. This definition is used in IEEE Std 2800-2022 (Adapted from IEEE Std 1547TM-2018).

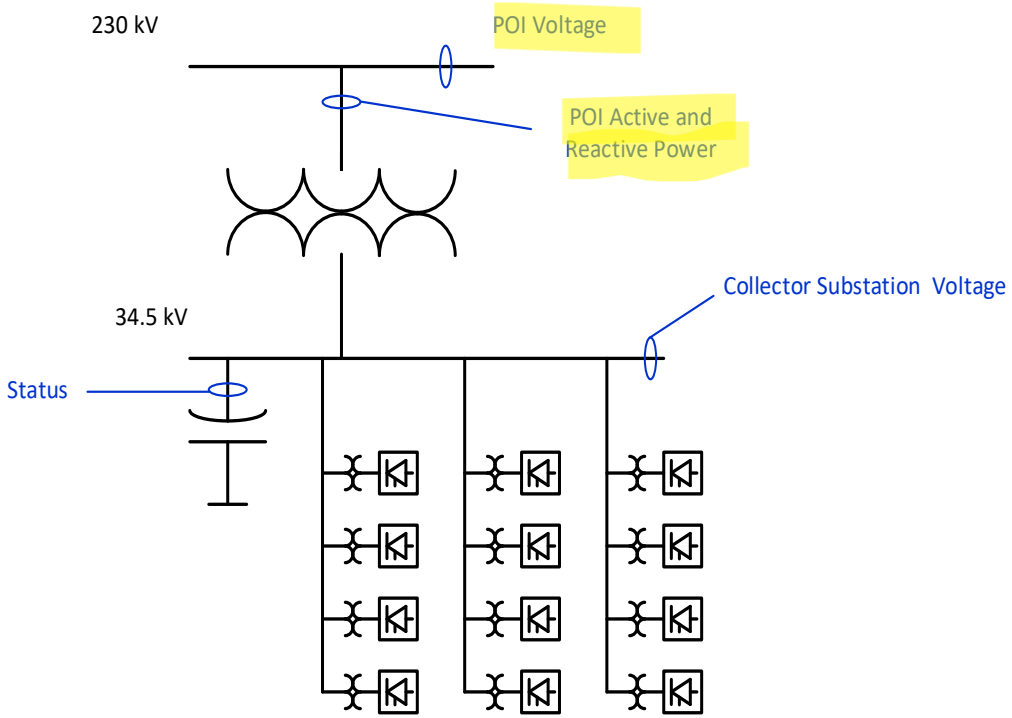
Point of Measurement (POM) - A point between the collector substation main transformer or generator substation transformer high-voltage bus of an energy source and the POI. This definition is used in IEEE Std 2800-2022 (Adapted from NERC Reliability Guideline – BPS-Connected Inverter-Based Resource Performance)

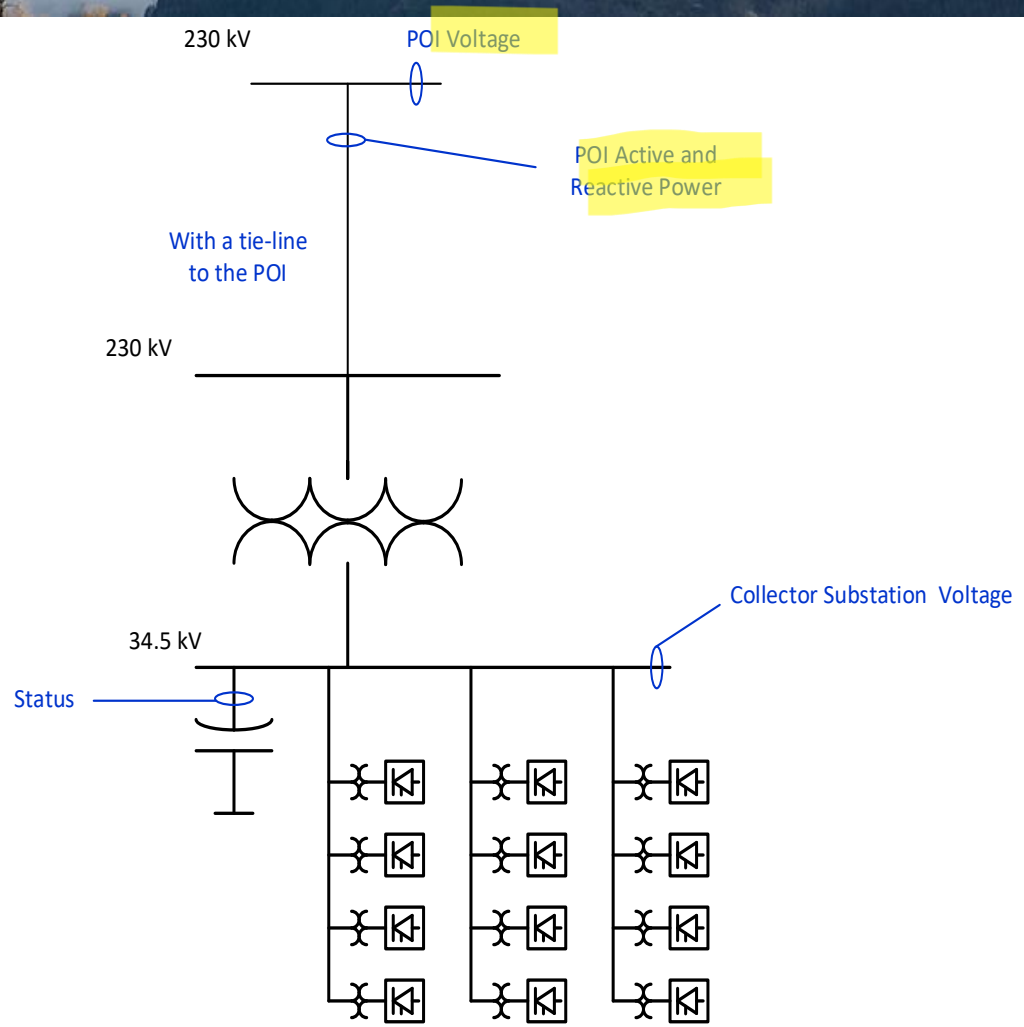
Point of Interconnection (POI) – the physical location an interconnection connects to facilities owned by BPA, change of ownership.

Reference Point of Applicability

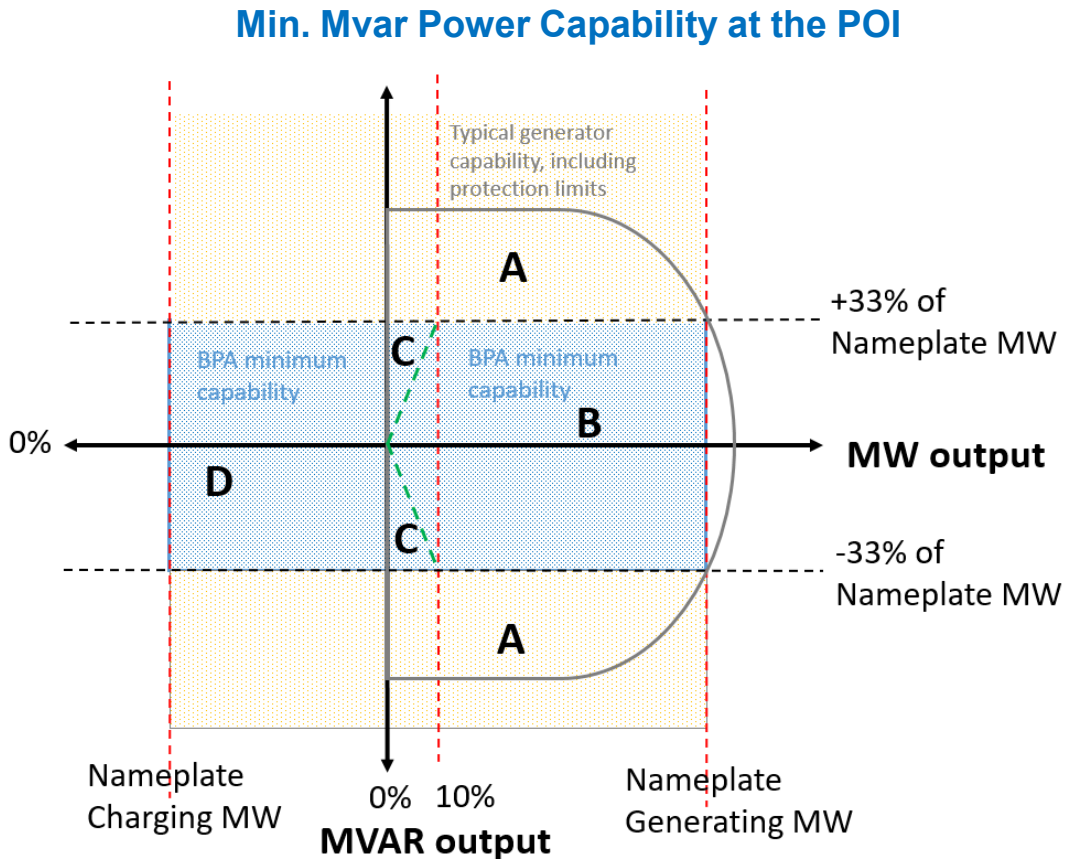
- The Point of Interconnection (POI) will be the default Reference Point of Measurement (POM) and Reference Point of Applicability (RPA).
- The default locations are established by the POI: POI = POM = RPA.
- On a case-by-case determination, the POI, POM, and RPA locations may be different.

Reference Point of Applicability





Reactive Power Requirements (exchange)



Revision 9 Update: the min. reactive was required for POI voltages 0.95 to 1.05. Now the min. reactive is adjusted for POI voltage as shown on the next slides.

- A: Plants can exceed the minimum reactive capability.
- B: Resources are required to provide +/- 33% of the plant's nameplate MW in dynamic reactive at the POI.
- C: Plants with technology unable to meet the minimum reactive capability at real power levels of 10% or less may request an assessment to determine if an exception is allowable.
- D: Energy storage components must provide +/-33% for its range of operation from injecting to absorbing real power.

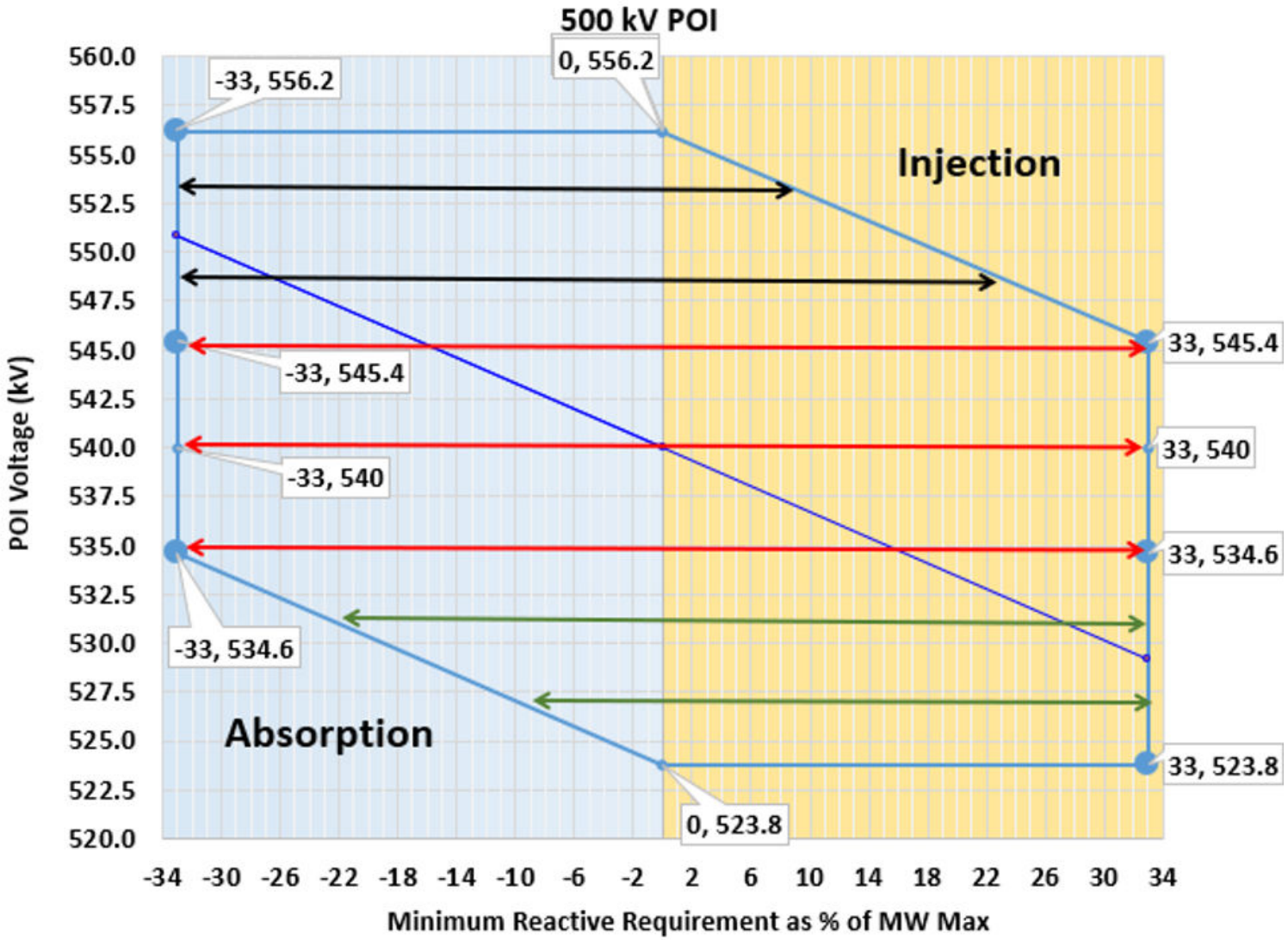
Voltage Adjusted Minimum Reactive Power

IEEE Std. 2800 provides Minimum Plant Reactive Capability requirements adjusted for POI voltage.

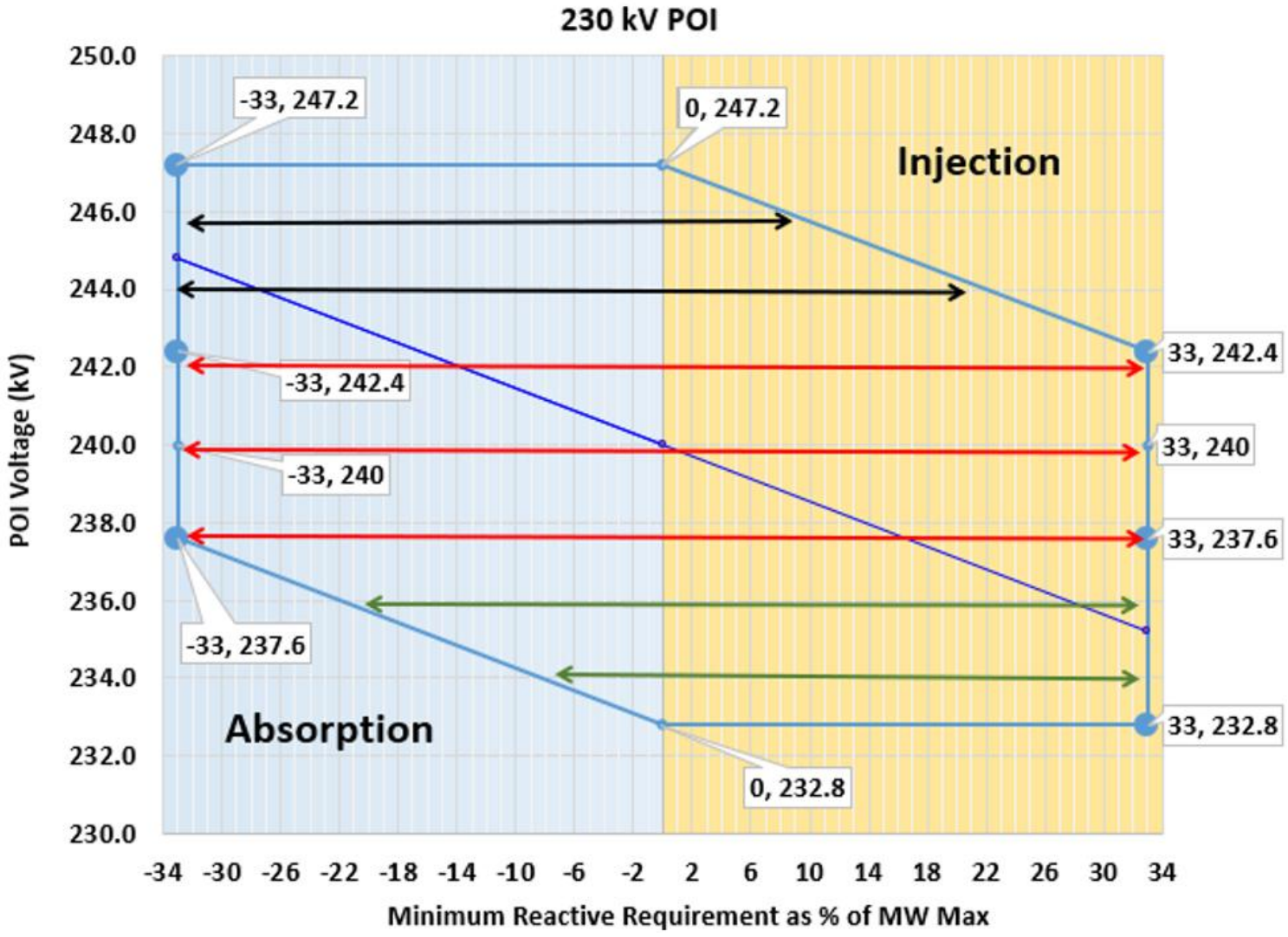
BPA Default Requirement:

- **Scheduled Voltage** at the POI is sent to the plant.
- **Voltage Band** – around the scheduled voltage the full reactive capability is required. The band may range from 0 to +/-1.5% of the voltage schedule. *The default will be +/-1%*.
- **Adjusted Minimum Reactive Capability** – adjusts linearly from the edge of the band to zero at a percentage (+/-) from the scheduled voltage. The percentage can range from 2 to 5%. The defaults are +/-3% for 500 kV and 230 kV POIs and +/-4% for 115 kV POIs.

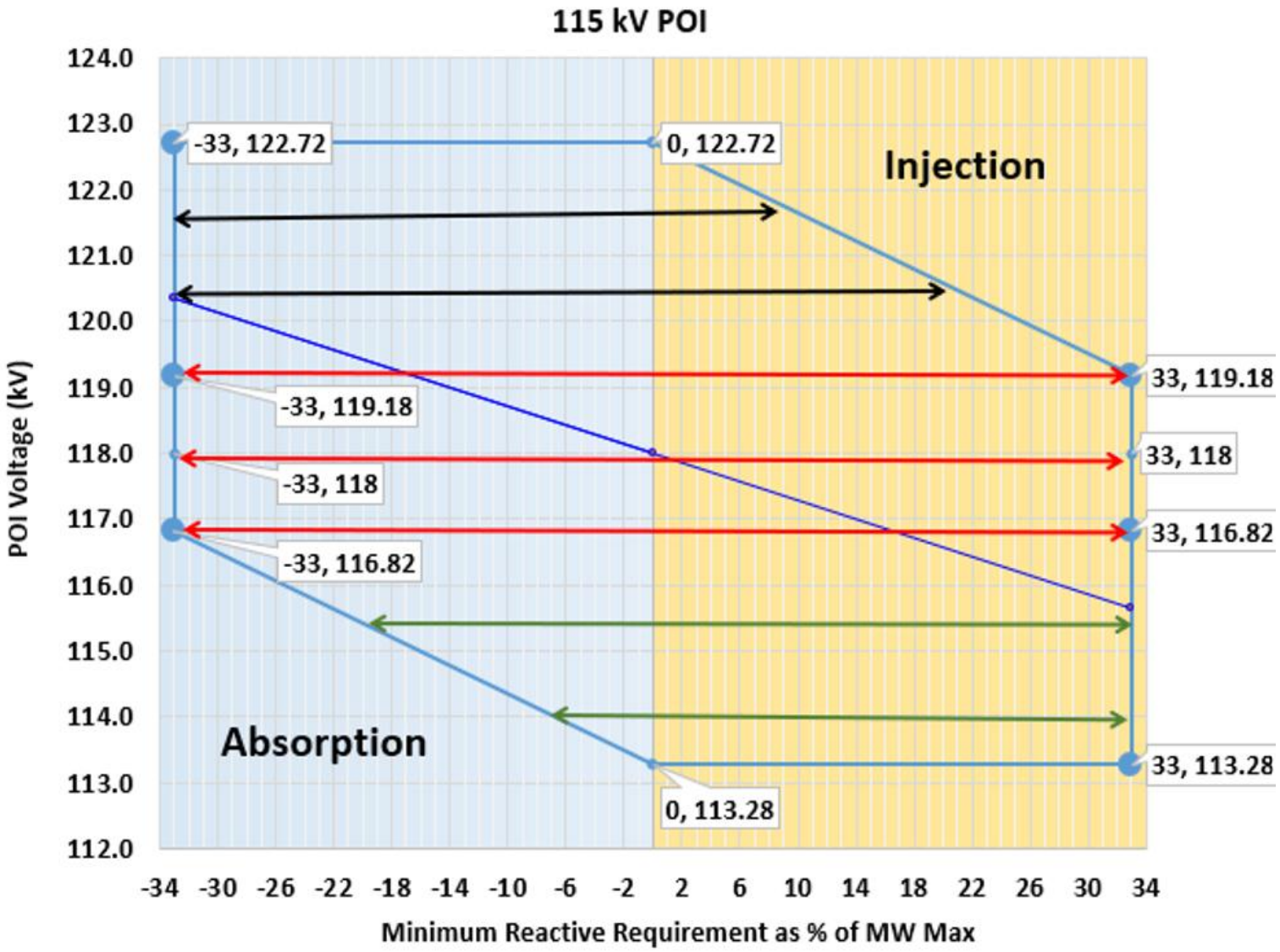
Voltage Adjusted Min. Reactive Power 500 kV POI



Voltage Adjusted Min. Reactive Power 230 kV POI



Voltage Adjusted Min. Reactive Power 115 kV POI



Reactive Power (responsiveness)

IEEE Std. 2800, 5.2.2 Voltage Control: *The voltage control system shall be capable of reactive power droop to provide a stable and coordinated response. The droop setting shall be settable and coordinated by the TS operator and IBR operator. The automatic voltage control shall have a range of available droop settings from 0 to 0.3 per unit voltage change for 1.0 per unit reactive power on the ICR base.*

BPA Default Requirements:

- POI voltage must be controlled with a 2% reactive droop.
- Voltage normalized to typical voltage schedule targets (540 kV, 240 kV, 118 kV)
- Reactive normalized to maximum reactive capability required (33% of MW maximum).
- The 2% reactive droop is defined at the POI, such that a +/- 2% change in POI voltage from the voltage schedule will result in a full reactive response from the generating facility, or reactive injection/absorption at the POI equal to 33% of the plant's nameplate MW.

Reactive Power Requirements (rate of response)

Table 5—Performance target range

Parameter	Performance target	Notes	BPA
Reaction time	< 200 ms		No requirment.
Maximum *step response time*	As required by the *TS operator*	The slowest response shall be tuned based on the *TS operator* requirements for response time and stability given the anticipated range of grid strength, other local voltage control devices, and *overshoot* requirements. The *step response time* may typically range between 1 s and 30 s. Any switched shunts or LTC transformer tap change operation needed to restore the dynamic reactive power capability in Figure 8 shall respond within 60 s.	**Step Response Time < 5 seconds** **Overshoot < 10%**
Damping	Damping ratio of 0.3 or higher	Damping ratio, indicative of control stability, depends on grid strength.	Postively damped ratio not specified

- POI voltage must be controlled with a 2% reactive droop.
- Voltage normalized to typical voltage schedule targets (540 kV, 240 kV, 118 kV)
- Reactive normalized to maximum reactive capability required (33% of MW maximum).
- The 2% reactive droop is defined at the POI, such that a +/- 2% change in POI voltage from the voltage schedule will result in a full reactive response from the generating facility, or reactive injection/absorption at the POI equal to 33% of the plant's nameplate MW.

Frequency Control (responsiveness)

Item	IEEE Std. 2800 Requirement	BPA Notes
Primary Frequency Response	All new interconnecting generating facilities (large and small) shall install and enable primary frequency response capability as a condition of interconnection.	✓ FERC Order 842 ✓ BPA Requirement ✓ IEEE Std. 2800
Frequency and real power control	Droop should be set between 2% and 5% *The default droop is 5%* Under/Over frequency dead band 0.025% to 1.6% *The default deadband 0.06% of 60HZ (+/-36 mHZ), (59.964, 60.036)*	***BPA Default:** **Droop should be set between 3% and 5%** with a total dead band (intentional plus unintentional) not to exceed **+/- 0.06% of 60HZ (+/-36 mHZ)**.

*Aligns well with the default and expected to provide adequate IBR performance.

Frequency Control (rate of response)

Item	Requirement	BPA Notes
Reaction time	0.2 (0.5 for WTG) to 1 seconds 0.5 default value	***BPA Default** Step response time < 5 seconds (0 to 90%) Overshoot < 10%
Rise time (10-90%)	2 (4 for WTG) to 20 seconds 4.0 default value	
Settling time	10 to 30 seconds 10 default value	
Settling band	1 to 5% Maximum (2.5% of change or 0.5% of ICR)	
Damping	0.2 to 1.0 0.3 default value	***BPA Default** Positively damped, ratio not specified at this time.

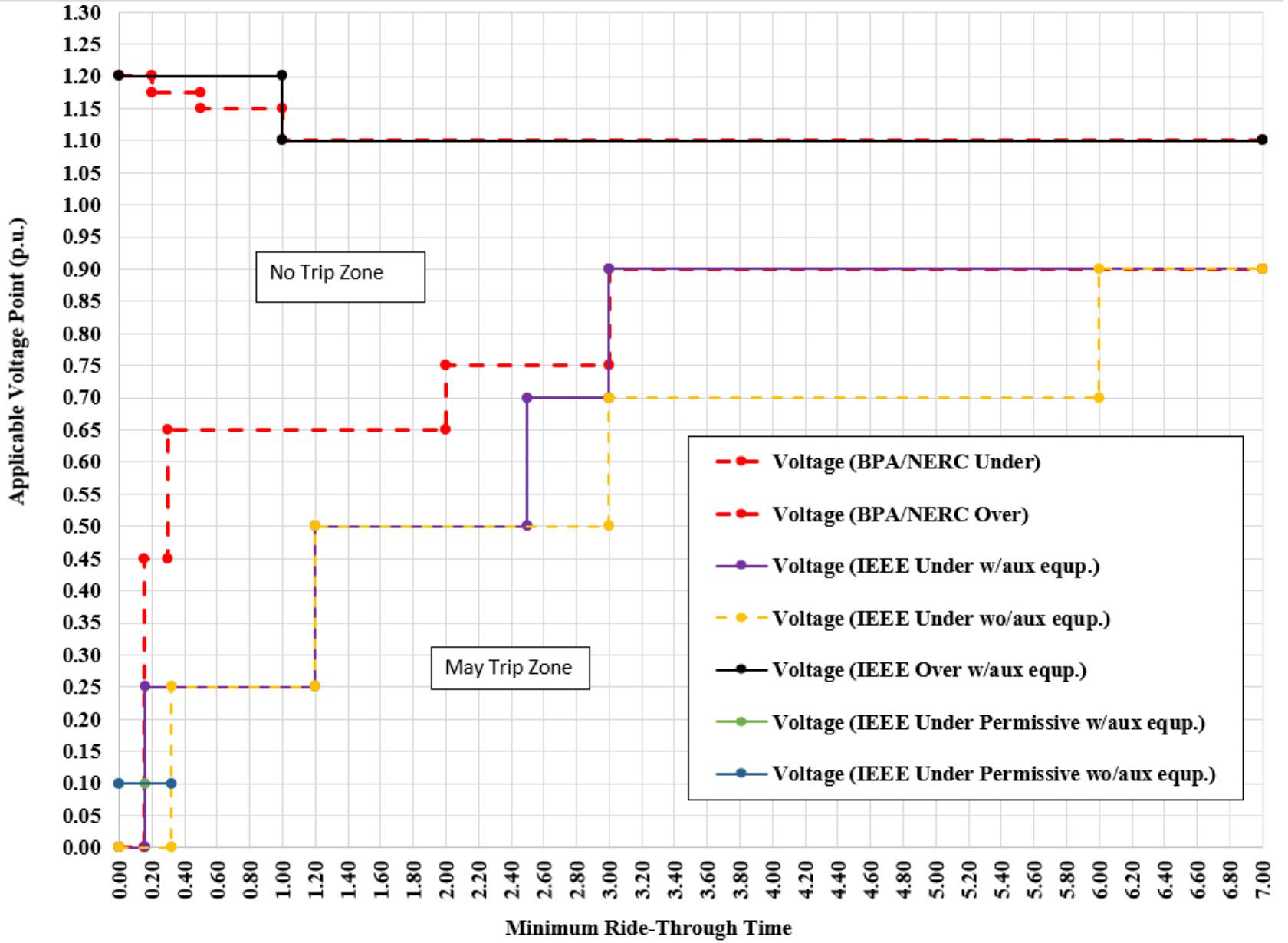
*Aligns well with the default and expected to provide adequate IBR performance.

Frequency Control – Fast Freq. Response (FFR)

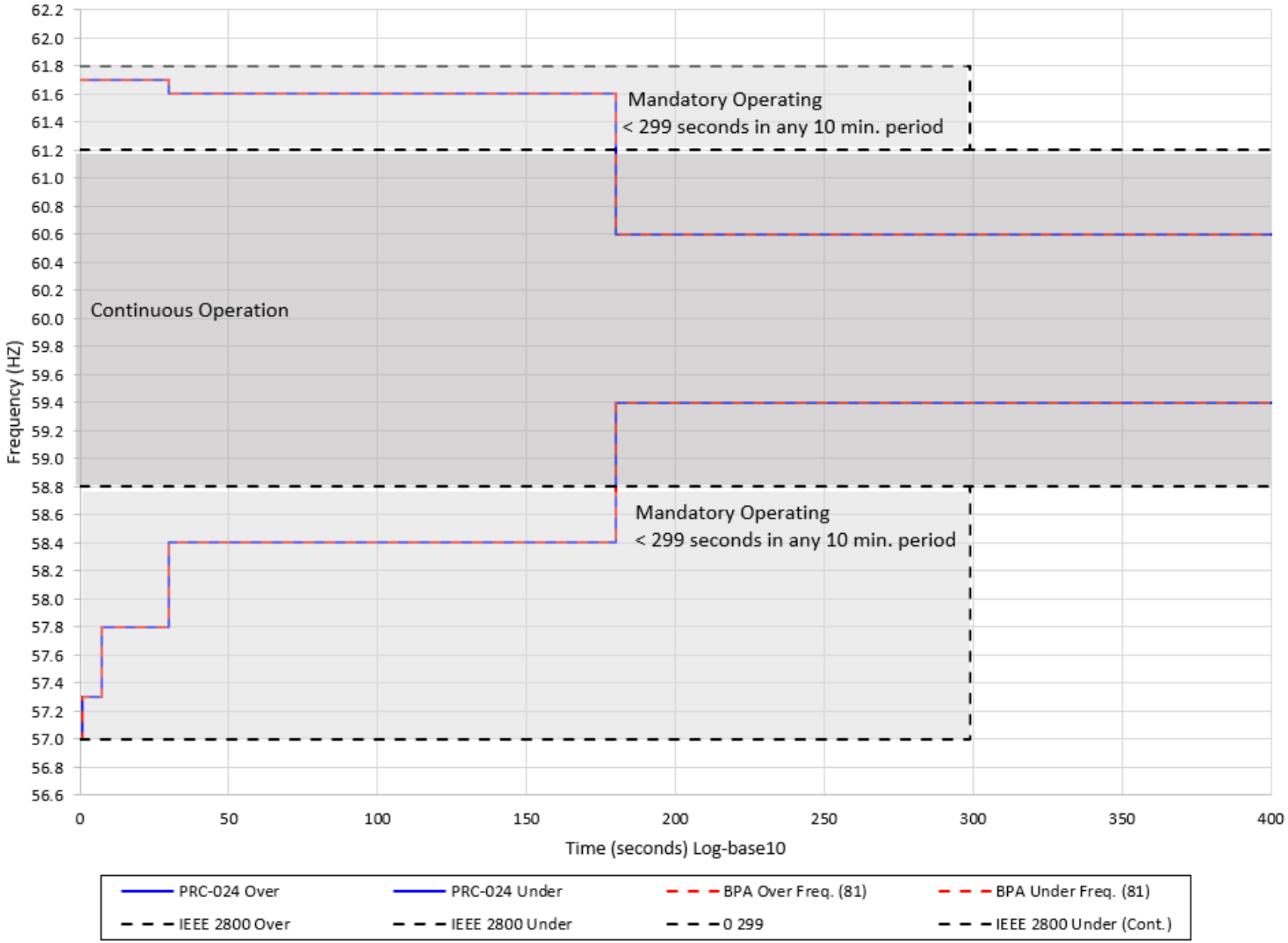
Fast Frequency Response (FFR1, proportional to frequency deviation)	
Under frequency trigger	99.17% to 99.94% of nominal, default 99.4% of nominal 59.502 Hz to 59.965 Hz, default 59.64 Hz
Droop	1% to 5%, default is 1% per unit change in frequency corresponding to 1 per unit change in power output.
Step response time (0 to 90%)	No greater than 1 second
Damping	0.3 or better (dampened response shall take precedence over response time)
Other FFR Methods, IEEE Std 2800-2022, Annex K: FFR2 – proportional to df/dt FFR3 – fixed magnitude with frequency trigger FFR4 – fixed magnitude with df/dt trigger	

IEEE Std. 2800 6.2.2 FFR performance: *"An IBR plant shall meet the FFR performance requirements as specified in 6.2.2.1. Utilization of FFR capability of IBR plant shall not be enabled by default."*

Voltage Ride-Through Requirements



Frequency Ride-Through Requirements



Slido Question

Slido.com

Join Code: 6875792

ELEVATE
ENERGY CONSULTING

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Other Industry Experience Adopting IEEE 2800-2022

Industry Advisory Group (IAG) Meeting #3

Ryan D. Quint, PhD, PE, *President and CEO*
Kyle Thomas, PE, VP, *Engineering and Compliance Services*
Nick Giffin, PE, *Lead Engineer, Modeling and Studies*

July 17, 2025

ERCOT Adoption

Current Nodal Operating Guides

View the most recent version of the Nodal Operating Guides below. Find historical versions in the Nodal Operating Guides Library.

- Section 1: Overview
- Section 2: System Operations and Control Requirements
- Section 3: ERCOT and Market Participant Responsibilities
- Section 4: Emergency Operation
- Section 5: Network Operations Modeling Requirements
- Section 6: Disturbance Monitoring and System Protection

(2) An IBR with an SGIA executed on or after August 1, 2024 or that implements a modification, as described in paragraph (1)(c) of Planning Guide Section 5.2.1 for which a GIM was initiated on or after August 1, 2024, shall meet or exceed the capability and performance requirements in the following sections of Institute of Electrical and Electronics Engineers (IEEE) 2800-2022, Standard for Interconnection and Interoperability of Inverter-Based Resources (IBRs) Interconnecting with Associated Transmission Electric Power Systems ("IEEE 2800-2022 standard"), including any intra-standard cross references or definitions, unless otherwise clarified, modified, or exempted in the Protocols, these Operating Guides, or the Planning Guide:

(a) Section 5, Reactive power-voltage control requirements within the continuous operation region;

(b) Section 7, Response to TS abnormal conditions; and

(c) Section 9, Protection.

(3) All IBR plant requirements and IBR unit requirements described in the IEEE 2800-2022 standard apply at the Point of Interconnection Bus (POIB) and the individual IBR unit terminal, as appropriate, unless otherwise clarified, modified, or exempted in the Protocols, these Operating Guides, or the Planning Guide.

Source

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MISO Adoption

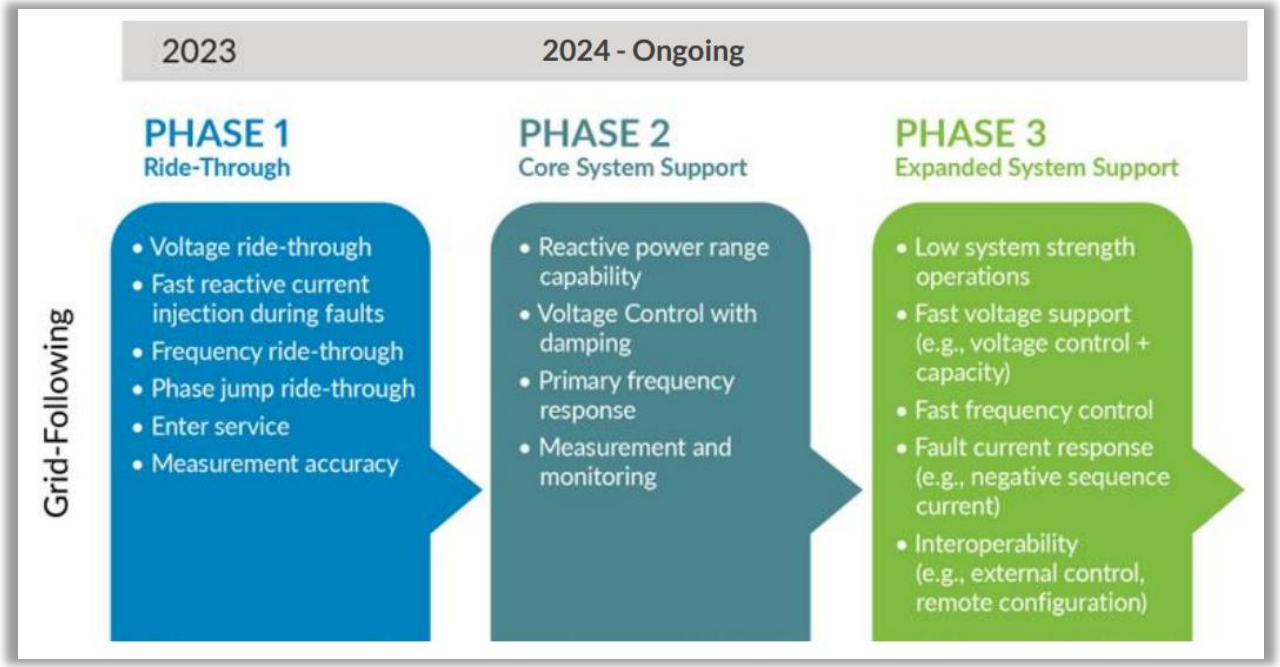
Clauses to be adopted were specified in the tariff language, as well as clarification for decision points left open in IEEE 2800

- A table was also included to summarize which sub-clauses were adopted and which are not at this time

TABLE 1. SUMMARY OF ADOPTION TREATMENT OF IEEE 2800-2022 SUBCLAUSES

IEEE 2800-2022 Subclause	Required by Appendix G	Exception
7.1 Introduction	X	
7.2.1 Voltage protection		X
7.2.2.1 Voltage disturbance ride-through: General	X	
7.2.2.2 Voltage disturbances within continuous operation	X	
7.2.2.3 Low- and high-voltage ride-through	X	
7.2.2.4 Consecutive voltage deviations ride-through		X
7.2.2.5 Dynamic voltage support	X	
7.2.2.6 Restore output after voltage ride-through	X	
7.2.3 Transient overvoltage	X	
7.3.1 Mandatory frequency tripping		X
7.3.2 Frequency disturbance ride-through	X	
7.4 Return to service	X	

Source



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ISO-NE Adoption

Exceptions:

- 4.5 is not adopted at this time
- 4.6 is not adopted at this time
- 4.7 items a-c are not adopted at this time
- 4.10 is not adopted at this time
- 4.11 is not adopted at this time
- 4.12 is not adopted at this time
- Capability to provide reactive power support when the primary energy source is not available as described in clause 5.1 is not adopted at this time
- 6.2 is not adopted at this time
- 7.4 is not adopted. Generators return to service after trip shall be coordinated with ISO-NE Control Room.
- Clauses 8, 9, 10, 11, and 12 are not adopted at this time

Clarifications:

- The measurement accuracy requirements of clause 4.4 are subject to coordination with all applicable ISO-NE Operating Procedures and NERC standards and the aforementioned will take precedence over compliance with this clause
- The default RPA is the POM as detailed in clause 4.2.1 unless otherwise specified within this Appendix F of PP5-6
- IBR's are not required to pre-curtail output in order to reserve under frequency response availability
- Resources tripping offline, going into blocking modes, or reducing power output outside of allowable ranges within clause 7 of this standard during SIS review will be treated as significant adverse impact, and mitigations will be required.
- Voltage disturbance oscillations and voltage excursions are defined differently under 7.2.2.4. Voltage excursions are separate events as where oscillations are not.
- Clause 5.1 shall be treated as a minimum reactive capability requirement for non-synchronous generation
- System Impact Study testing shall evaluate the compliance of the minimum reactive capability with the requirements of clause 5.1 of IEEE 2800.
- System Impact Study testing shall evaluate the compliance of the voltage and reactive power control with the requirements of clause 5.2 of IEEE 2800.
- System Impact Study testing shall evaluate the compliance of the active power and frequency response with the requirements of clause 6 of IEEE 2800.
- System Impact Study testing shall evaluate the compliance of the ride through capability with the requirements of clause 7 of IEEE 2800.

Source

Appendix F – IEEE 2800 Requirements

This Appendix E provides implementation guidance in the application of the material modification procedures contained in Schedules 22, 23 & 25 of the OATT.

- For the purposes of this appendix, figures 1, 2 and 3 of clause 1.4 shall be adhered to
- This appendix defers to clause 3 of IEEE 2800-2022 for definitions, acronyms, and abbreviations
- Shall be compliant with clause 4 of IEEE 2800-2022
  - Shall be compliant with clause 4.1
  - Shall be compliant with clause 4.2
  - Shall be compliant with clause 4.3
  - Shall be compliant with clause 4.4
  - Shall be compliant with clause 4.7 items d-g
  - Shall be compliant with clause 4.9
- Shall be compliant with clause 5 of IEEE 2800-2022
  - Shall be compliant with clause 5.1
    - Default RPA shall be the POM
    - ICR and ICAR shall be defined as the Rated Active Power Output Rated Active Power Absorption as listed in the IBRs interconnection agreement.
    - Table 4 RPA Voltage Ranges will be defined based on the interconnection TOs requirements.
  - Shall be compliant with clause 5.2
    - Resources shall be enabled in voltage control mode by default
    - Response times under table 5 are adopted as the default
    - Proposed maximum step response timing will be subject to review during SIS to ensure no adverse impact during low system strength conditions
- Shall be compliant with clause 6 of IEEE 2800-2022
  - The default RPA for clause 6 is as written as the default in 6.1.1
  - Shall be compliant with 6.1.1
    - Both under and over frequency response shall be enabled to the fullest extent
    - Default parameters under table 7 are adopted

6.7 IEEE 2800 Requirements

Non-synchronous resources participating in the first ISO-NE Cluster study, pursuant to FERC Order No. 2023, (and all subsequent clusters) must meet the requirements of Appendix F.

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Southern Company Adoption

Southern Company

Interconnection Requirements for Transmission Connected Inverter-Based Resources

Effective August 6, 2023

Table Of Contents

5 IBR Capability and Performance

This section details the IBR capability and performance requirements for all IBR plants connecting to Southern Companies' Transmission System (V_{POI} > 40 kV). The IBR plant shall meet all requirements specified in IEEE Std 2800-2022 with the exception of Clause 8. Additional information required from the TS owner, TS operator, and/or TS planner[4] and any additional capability or performance specifications required by SCT are provided in this section.

Figure 5 shows an example single-line diagram of an IBR plant for reference. This figure includes the different elements of the plant, such as the IBR unit, IBR Unit Transformer, Main IBR Transformer, and IBR tie line. Additionally, the example single-line diagram in Figure 5 shows the POI, POM, and POC.

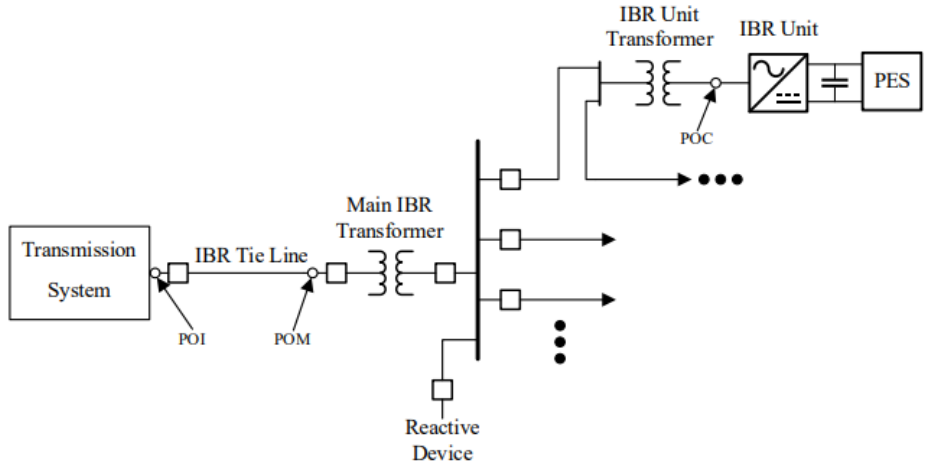

Figure 5. Example Single-Line Diagram of a Generic IBR Plant.

5.1 Prioritization of IBR Responses

The IBR plant and IBR unit responses shall be prioritized as specified in Clause 4.7 of IEEE Std 2800-2022.

Source

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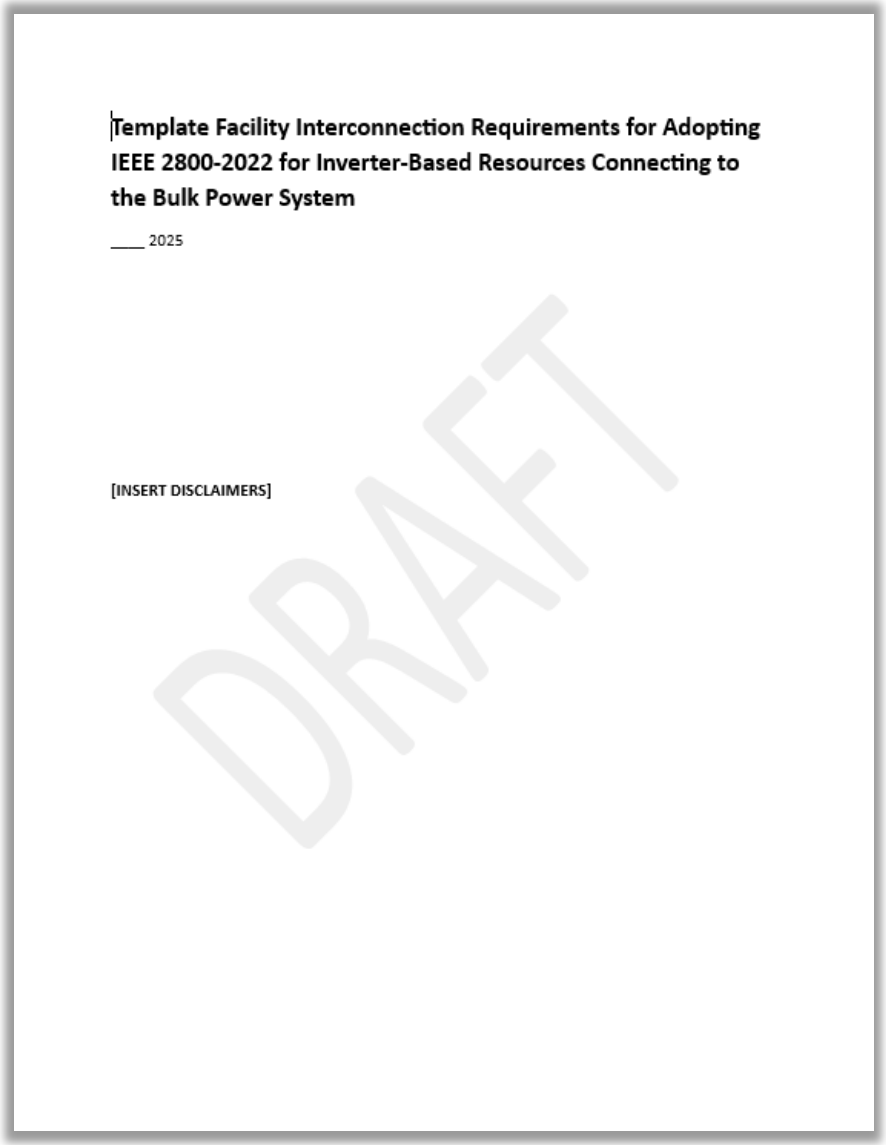
Template Facility Interconnection Requirements

- Harmonization across the West
- Draft 0.1 ready for industry feedback
- Will be reviewing and discussing IEEE 2800-2022 clauses in more detail over next few meetings, aligning with template FIR document
- Gather industry feedback throughout process, adjust as needed
- Publish for industry (Western TO, TP, PC) use, adaptation, implementation


Template Facility Interconnection Requirements for Adopting IEEE 2800-2022 for Inverter-Based Resources Connecting to the Bulk Power System

___ 2025

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Slido Question

Slido.com

Join Code: 6875792

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Industry Advisory Group Schedule

Date	Topics
✅ May 19, 2025 (3:00–4:00 p.m. MT)	Kickoff: Background, Goals, and Timeline
✅ June 26, 2025 (1:00–2:00 p.m. MT)	IEEE 2800 Overview & IBR Requirements Planning
✅ July 17, 2025 (9:30–10:30 a.m. MT)	IBR Requirements Enhancements – Industry Experience
August 28, 2025 (1:00–2:00 p.m. MT)	Draft Template Review: General Interconnection Requirements
September 25, 2025 (1:00–2:00 p.m. MT)	Draft Template Review: Technical Performance Requirements
October 23, 2025 (1:00–2:00 p.m. MT)	Draft Template Review: Model & Study Requirements
November 13, 2025 (1:00–2:00 p.m. MT)	Draft Template Review: SCADA, Monitoring, Compliance
December 17, 2025 (1:00–2:00 p.m. MT)	Final Review & Closeout

Thank You!

Next Industry Advisory Group Meeting

August 28, 2025 at 1:00 PM MT

Eric Baran, ebaran@westernenergyboard.org

Ryan Quint, ryan.quint@elevate.energy

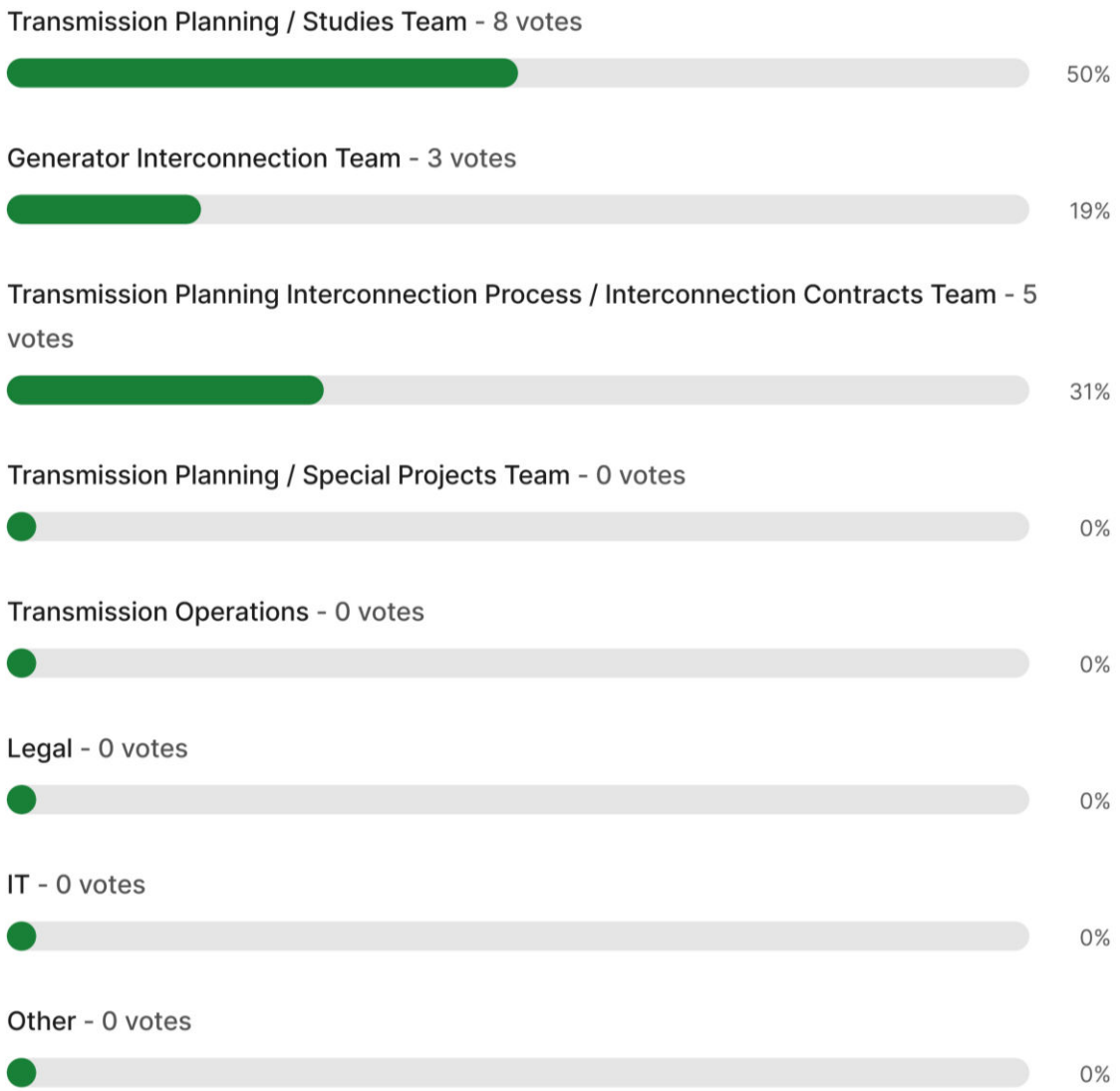
Kyle Thomas, kyle.thomas@elevate.energy

Nick Giffin, nick.giffin@elevate.energy

WIRAB

Western Interconnection Regional Advisory Body

Slido Q1: What department(s) within your company own (or would own) IEEE 2800-2022 implementation into interconnection requirements?



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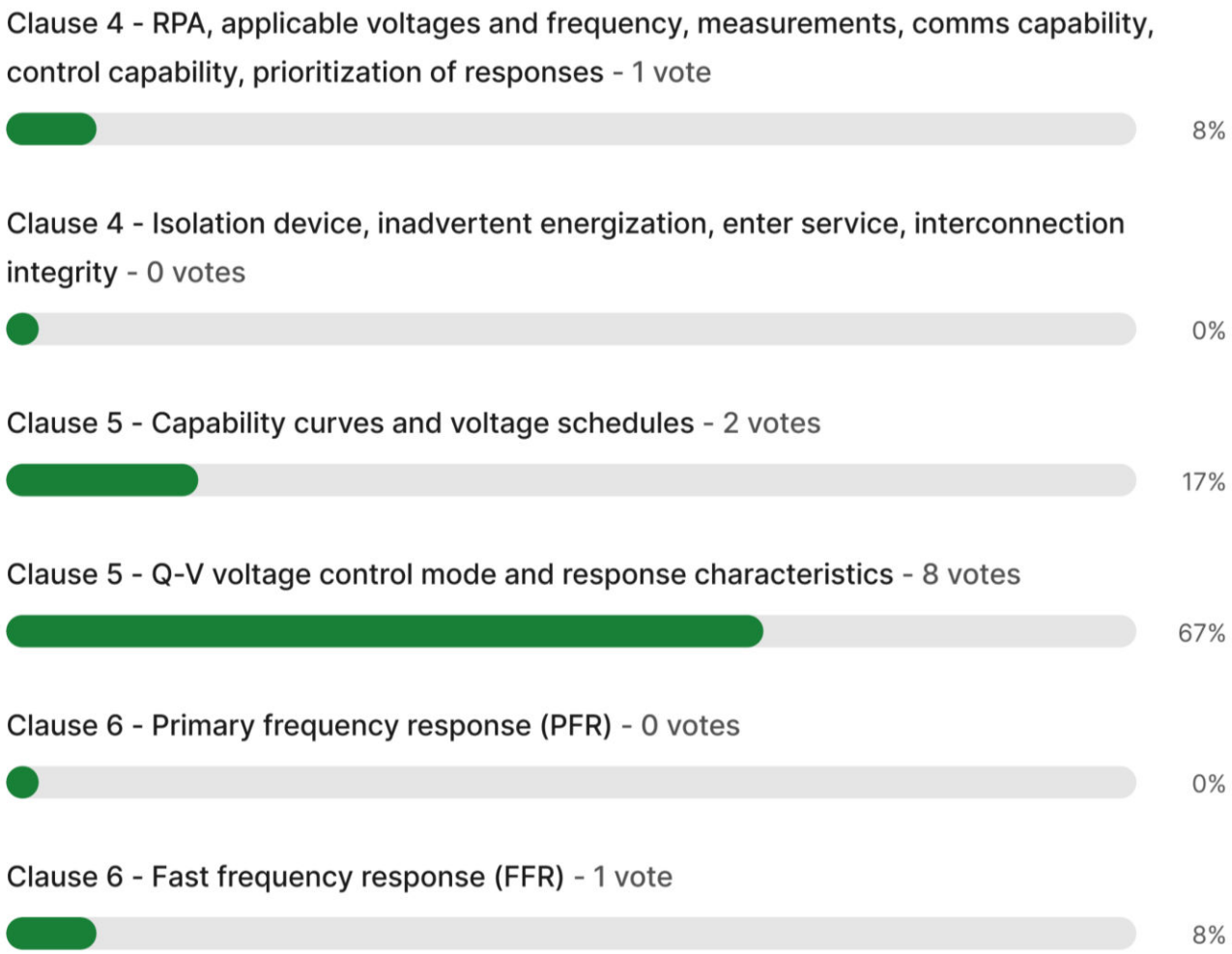
Slido Q2: What specific topics within Clauses 4, 5, and 6 of IEEE 2800 do you have the most questions about?



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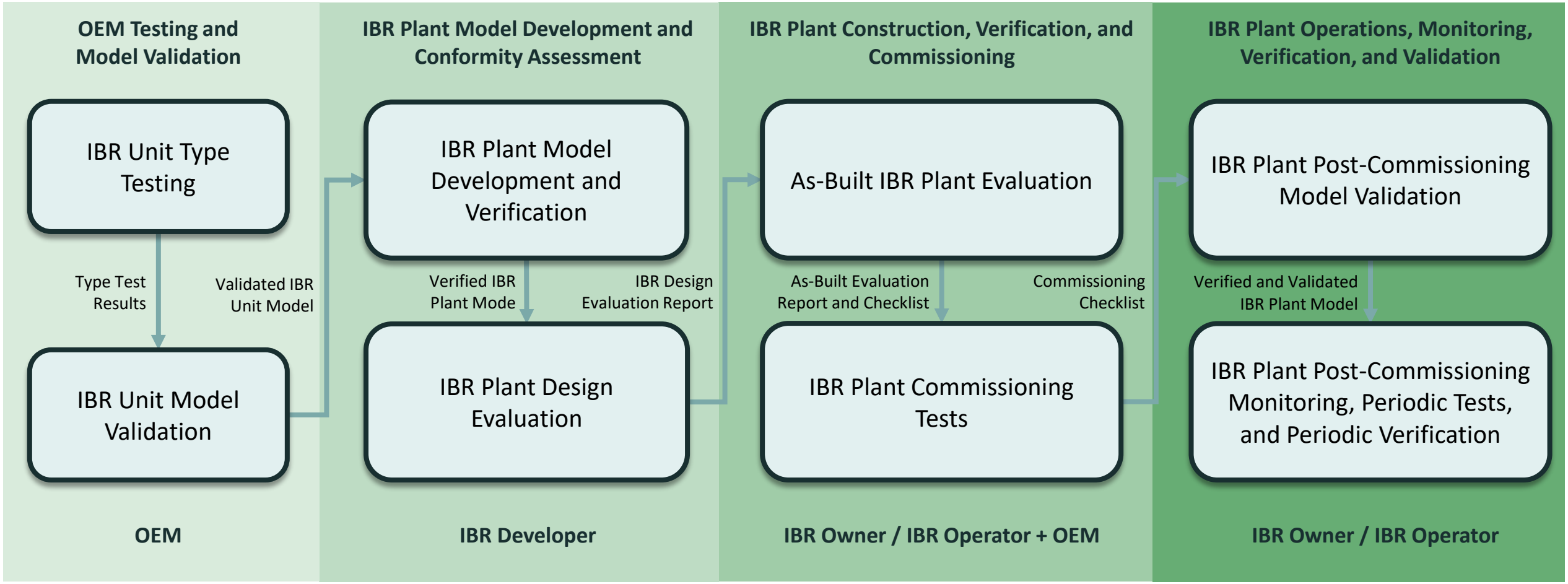
IEEE P2800.2 IBR Plant Performance Conformity Assessment



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