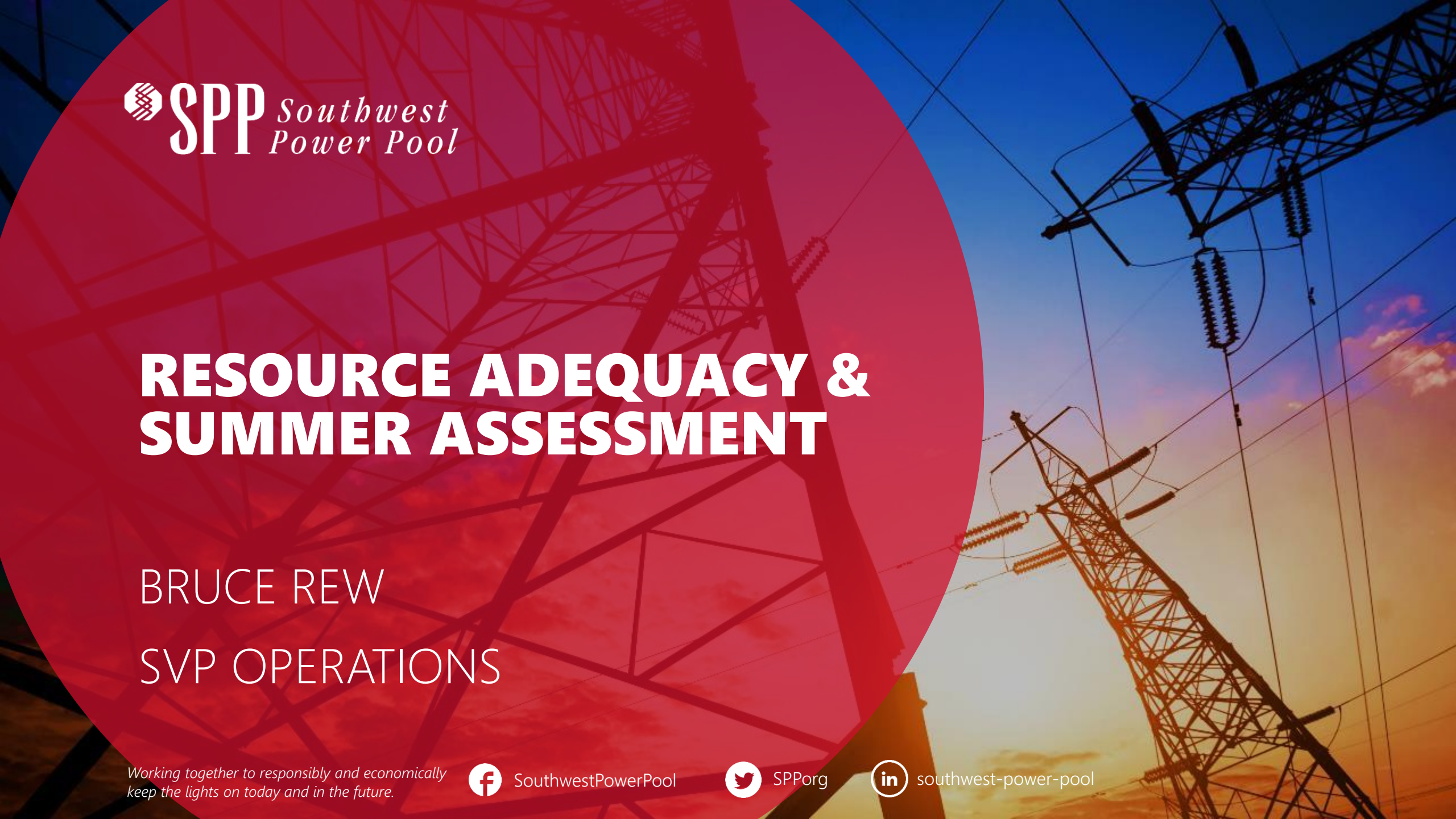


SPP Southwest Power Pool

RESOURCE ADEQUACY & SUMMER ASSESSMENT

BRUCE REW

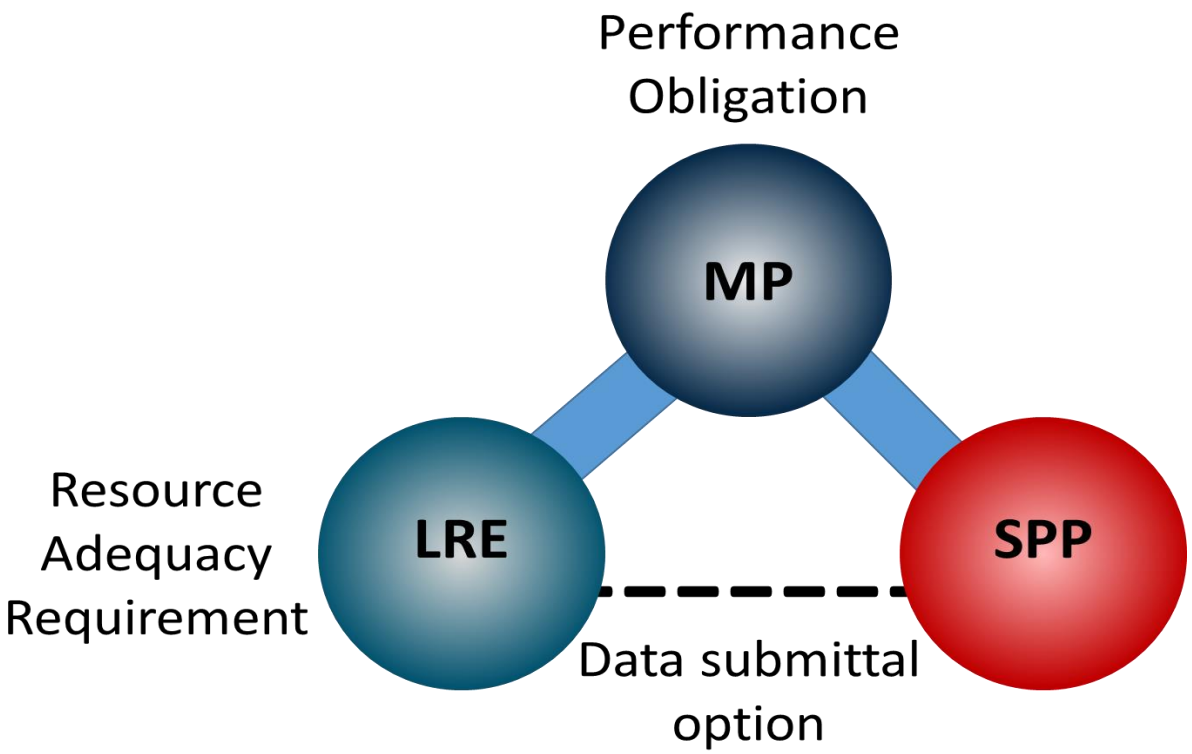
SVP OPERATIONS

Working together to responsibly and economically keep the lights on today and in the future.

SouthwestPowerPool SPPorg southwest-power-pool

RESOURCE ADEQUACY

SPP RESOURCE ADEQUACY CONSTRUCT



Resource Adequacy process outlined in **OATT Attachment AA**

Load Responsible Entity (LRE) is responsible for maintaining capacity to meet its load and planning reserve needs.

- LREs have no contractual relationship with SPP

Market Participants (MP) are responsible for the performance obligation of the LRE.

- Each LRE either is an MP or is represented by an MP by contract

CONE: Cost of New Entry | **ERAS:** Expedited Resource Adequacy Study | **MP:** Market Participant | **PRM:** Planning Reserve Margin | **RAR:** Resource Adequacy Requirement | **SVC: Sufficiency Valuation Curve** |

SPP'S RESOURCE ADEQUACY APPROACH

- Requirements imposed on load responsible entities
- Regional requirements for resource adequacy
- Bilateral capacity market
- Compliance measured through data submission and enforced by SPP tariff
- PRM requirement established through biennial Loss of Load Expectation (LOLE) analyses
- Forward looking 6 months to 5 years

Capacity
All team members' ability to play
Energy
Output of players on field
Reserve margin
Ability of bench members to play

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SPP TARIFF: ATTACHMENT AA COMPLIANCE

- LREs utilize accredited capacity from qualified resources and agreements to meet Summer Season and Winter Season **Resource Adequacy Requirement** (RAR) under Attachment AA of the Tariff
- The RAR requires an LRE to maintain enough capacity to meet its **Planning Reserve Margin** (PRM) in addition to its **Net Peak Demand**
  - **Summer Season RAR** = Summer Net Peak Demand + Summer PRM
  - **Winter Season RAR** = Winter Net Peak Demand + Winter PRM
  - Deficiency Payment on capacity shortfall
- PRM is designed to measure the amount of generation capacity available to meet expected demand in the planning horizon

CONE: Cost of New Entry | **ERAS:** Expedited Resource Adequacy Study | **MP:** Market Participant | **PRM:** Planning Reserve Margin | **RAR:** Resource Adequacy Requirement | **SVC: Sufficiency Valuation Curve** |

COMPONENTS OF RAR COMPLIANCE

Load Responsible Entity obligations:

- Provision of load forecast for the upcoming season/year
- Provide qualifications for resources identified to meet the RAR
- Provide qualifications for power purchase agreement identified to meet the RAR.

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RESOURCE ADEQUACY REQUIREMENT – EDST/WORKBOOK SUBMISSIONS

Summer	2025	2026	2027	2028	2029
Initial Workbook Submissions due	2/15/2025 Completed	2/1/2026*	2/1/2027	2/1/2028	2/1/2029
Deficiency Notices sent out by SPP	4/1/2025	3/15/2026*	3/15/2027	3/15/2028	3/15/2029
Deadline to cure deficiencies	5/15/2025	5/15/2026	5/15/2027	5/15/2028	5/15/2029
June Resource Adequacy Requirement Report	6/15/2025	6/15/2026	6/15/2027	6/15/2028	6/15/2029

Winter	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030
Initial Workbook Submissions due	8/15/2025	8/1/2026	8/1/2027	8/1/2028	8/1/2029
Deficiency Notices sent out by SPP	10/1/2025	9/15/2026	9/15/2027	9/15/2028	9/15/2029
Deadline to cure deficiencies	11/15/2025	11/15/2026	11/15/2027	11/15/2028	11/15/2029
December Resource Adequacy Requirement Report	12/15/2025	12/15/2026	12/15/2027	12/15/2028	12/15/2029

EDST: Engineering Data Submittal Tool | This is the database portal where all data related to Attachment AA compliance is submitted by members

COST OF NEW ENTRY

The Cost of New Entry (CONE) is based on publicly available information relevant to the estimated annual capital and fixed operating costs of a hypothetical natural gas-fired peaking facility

SPP will annually review the CONE on or before November 1st and file any changes with FERC

- SPP will post on the SPP website the FERC-approved CONE for the next season within 10 days of approval
- CONE is currently set at $85.61/kw-year

When a PRM change is made, the Sufficiency Valuation Curve is effective for year 1 and 2

- The SVC provides a discounted Net Cone cost based on the CONE value

CONE: Cost of New Entry | **ERAS:** Expedited Resource Adequacy Study | **MP:** Market Participant | **PRM:** Planning Reserve Margin | **RAR:** Resource Adequacy Requirement | **SVC: Sufficiency Valuation Curve** |

DEFICIENCY PAYMENT

An LRE that fails to obtain sufficient capacity to meet the RAR will be considered deficient for the upcoming Summer Season **or** Winter Season

Deficiency Payment collected from an LRE (MP) will be distributed to the remaining LREs (MPs) who met the RAR in a ratio to their respective excess capacity.

Deficiency Payment =
LRE Deficient Capacity * CONE * CONE FACTOR

125%	• When the SPP Balancing Authority Area Planning Reserve is greater than or equal to the PRM plus 8%
150%	• When the SPP Balancing Authority Area Planning Reserve is greater than or equal to the PRM plus 3%, but less than the PRM plus 8%
200%	• When the SPP Balancing Authority Area Planning Reserve is less than the PRM plus 3%

CONE: Cost of New Entry | **ERAS:** Expedited Resource Adequacy Study | **MP:** Market Participant | **PRM:** Planning Reserve Margin | **RAR:** Resource Adequacy Requirement | **SVC: Sufficiency Valuation Curve** |

APPROVED PRM CADENCE: SECTION 4.0 PLANNING CRITERIA LANGUAGE

15% PRM is in effect for the 2025 Summer Season and the 2025/2026 Winter Season

The Base Planning Reserve Margin ("Base PRM") shall be sixteen percent (16%) for the 2026, 2027 and 2028 Summer Season and thirty six percent (36%) for the 2026/2027, 2027/2028, and 2028/2029 Winter Season. Beginning in the Summer Season of 2029, the Base PRM shall be seventeen percent (17%) for the 2029 Summer Season and thirty eight percent (38%) for the 2029/2030 Winter Season. The Base PRM percentages for each year are also depicted in the following table:

Summer Season	*PRM %*	*Winter Season*	*PRM %*
2026	*16*	*2026/2027*	*36*
2027	*16*	*2027/2028*	*36*
2028	*16*	*2028/2029*	*36*
2029	*17*	*2029/2030*	*38*

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2025 SUMMER OUTLOOK

UPCOMING SUMMER SEASON
BALANCING AUTHORITY FORECAST

These **preliminary values** reflect the data submitted by the Load Responsible Entity **2025 Summer** Season, **final calculations completed in June**

- Current accreditation policies can be found in Section 7.1 of the SPP Planning Criteria

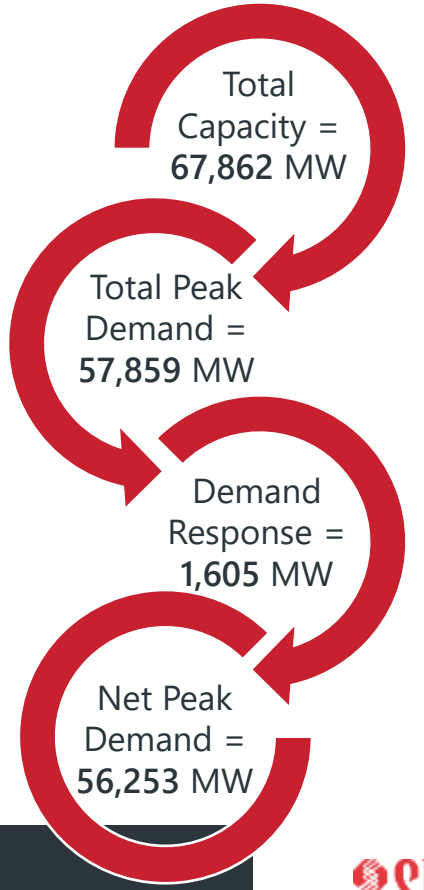
Capacity values shown are based on the current accreditation policies for both conventional and renewable resources

- Does not include the effects of Performance Bases Accreditation (PBA) or Effective Load Carrying Capability (ELCC) policies filed with FERC

Summer Season Resource Adequacy Requirement is based on the Net Peak Demand

- Forecasted reserve margin for the upcoming **Summer** Season is **~20.6%**

Reserve Margin Calculation = Total Capacity – Net Peak Demand / Net Peak Demand



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UPCOMING SUMMER SEASON
MISSOURI FORECAST

2025 Summer Season Missouri Outlook	
Capacity Resources	9,053.92
Firm Capacity Purchases	1,560.71
Firm Capacity Sales	858.30
External Firm Power Purchases	212.98
External Firm Power Sales	-
Additions	-
Reductions	-
ScheduledOutages	-
TransmissionLimitations	-
Total Capacity	**9,969.31**
Summer Peak Demand	8,602.20
DemandResponseAvailable	126.27
Internal Firm Power Purchases	40.00
Internal Firm Power Sales	-
Net Peak Demand	**8,435.93**
PRM	15%
Resource Adequacy Requirement	9,701.31
Excess or deficient	268.00
LRE Reserve Margin	**18%**

COWP	Carthage Water & Electric Plant, Missouri
EMDE	Empire District Electric Company (Liberty Utilities)
INDN	Independence Power & Light
KCPL	Kansas City Power & Light (Evergy Metro) includes Greater Missouri Operations Company
Kennett BPU	Kennett, Missouri Board of Public Works
Malden BPU	City of Malden Board of Public Works, Missouri
MJMEUC	Missouri Joint Municipal Electric Utility Commission
NIXA	City of Nixa, Missouri
PBEL	City of Poplar Bluff Municipal Utilities, Missouri
Sikeston	City of Sikeston, Missouri
SPRM	City Utilities of Springfield, Missouri
TYRE_CWEP	Carthage Water & Electric Plant, Missouri

CONTACT

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FERC FILINGS

WHAT IS CURRENTLY AT FERC?

Policy	Revision Request	FERC Filing
Performance Based Accreditation (PBA) / Effective Load Carrying Capability Accreditation (ELCC) Fuel Assurance	RR554 / RR568 RR621	Filed on February 23, 2024: Docket No. ER24-1317 Order Consolidation and Paper Hearing: January 16, 2025
RTO Western Expansion	RR600	Docket Nos. ER24-2184 and ER24-2185 March 20, 2025; Order Approving with Conditions
Winter PRM /Summer PRM Revision Request	RR622	Filed on October 15, 2024 Docket No. ER25-89 FERC Deficiency Letter issued May 7, 2025
ERAS	RR668	TBD

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2025/2026 WORK PLAN AND INITIATIVES

2025 RA WORKPLAN

This is a target date and would apply to the corresponding BOD/RSC cycle

Project	Status	Revision Request	Staff Start Date	REAL Policy Date	REAL RR Date	MOPC RR Date	Comments
Long Term PRM Requirement (2029)	Complete	--- COMPLETE ---					2029 PRM Requirement % will be at MOPC/RSC Jan/Feb and then RR will be at MOPC/RSC Apr/May
Enable more gen to connect faster (SPP ERAS)	Complete	--- COMPLETE ---					CPPTF, GIAG, and TWG are primary
Determine the value of Resiliency	Complete	--- COMPLETE ---					Primarily a transmission planning function to be discussed in coordination with the 2025 ITP
Warm Weather De-rates	Complete	--- COMPLETE ---					*Evaluated Planning and Ops data and determined that no impact to the 2025 LOLE Study is needed based on studied outage levels. Initiative was closed*
Surplus Plus	Started	Yes	'25	Jun '25	Jun '25	Jul '25	Incremental increase in Generation Interconnection service
Quantify differences in risks between planning models and real-time operations	Started	TBD	Jan '25	May'25	TBD	TBD	*Policy may be recommended after quantification and consideration of affordability*
LRE Peak Demand Assessment	Started	Yes	August '24	Jun '25	Sep '25	Oct '25	To be worked through at SAWG in parallel with related LFTF and DR initiatives
Demand Response+	Started	Yes	Oct '24	Sep '25	Dec '25	Jan '26	*RA, Ops and Market coordinated effort*
Affordability Metrics Policy	Started	TBD	Jan '24	Dec '25		TBD	Previously called: "Cost & Benefit for Reliability Standards (PRM/EUE)"
Long Term Resource Mix	Not started	TBD	Jan '25	Mar '26		TBD	Replicates the REAL future resource mix study with updates
Normalized EUE Standard	Not started	Yes	Jan '25	Mar '26		Jun '26	Replicates the REAL future resource mix study with updates
Outage Planning Alignment	Not started	*Yes*	Jan '25	Mar '26		Jun '26	Planned and Maintenance in LOLE, Warm Weather Derate analysis, LOLE outages considered in GAP, Incremental Cold Weather Outages