# Missouri Public Service Commission

## SPP Quarterly Update

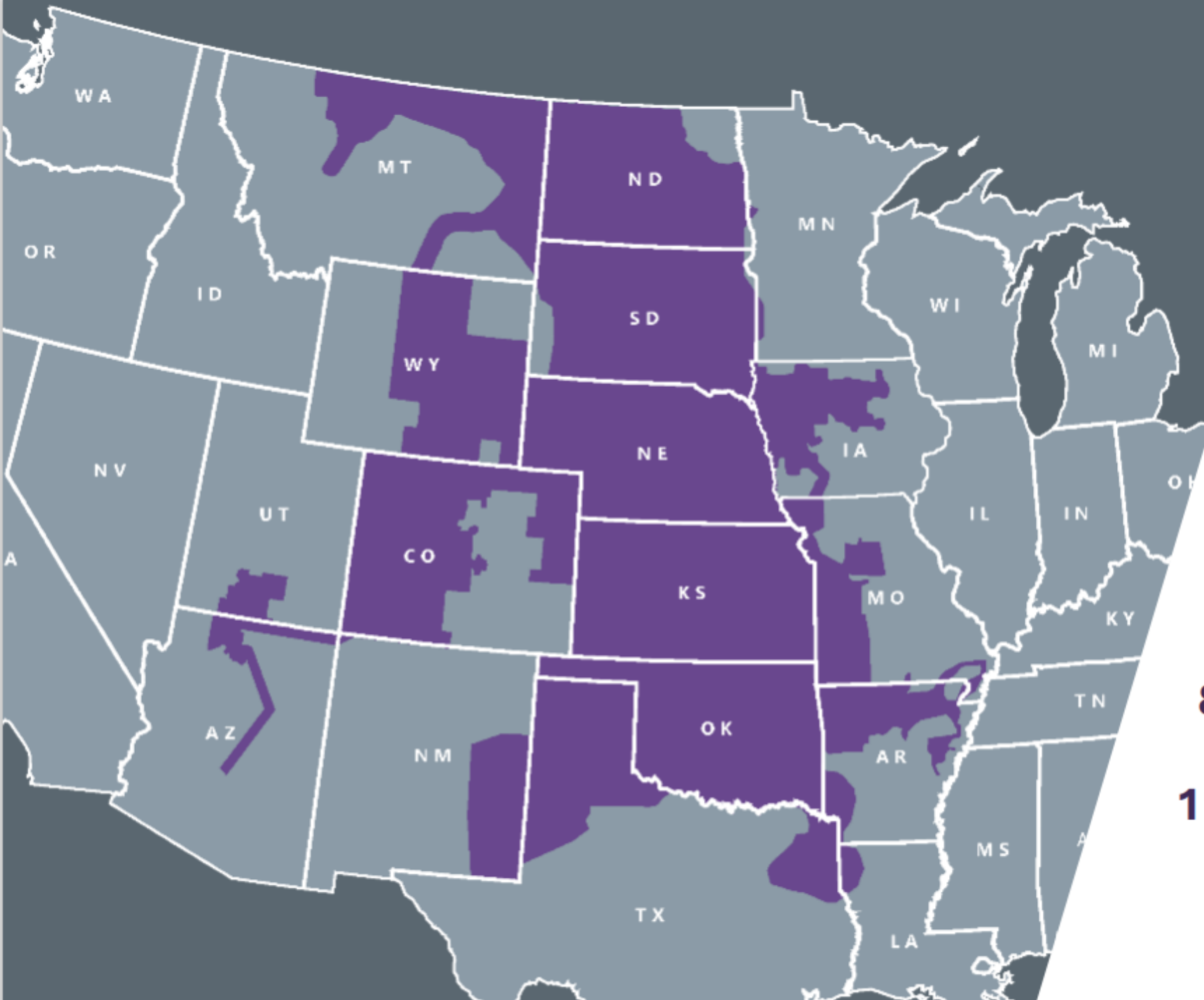
## 2026 Summer Readiness Forecast

May 28, 2026

# AGENDA

- SPP Resource Adequacy Overview
- SPP Planning Reserve Margin Requirements
- Cost of New Entry (CONE)
- 2026 Summer Preparedness & Reliability Outlook

# SPP Resource Adequacy Overview




# The SPP RTO

**as of 4/1/2026**

**17 states**
**20 million people**
**732,000 square miles**
**85,000 transmission miles**
**1200 generating units**
**116 GW registered capacity**
**5,700 substations**

SPP
Powering Progress

# Balancing Electric Supply and Demand

**SUPPLY/GENERATION**

- **107,502 MW** Nameplate Capacity *(as of March 2026)*
- **65,639 MW** Accredited Capacity *(as of Summer 2025)*

**DEMAND/LOAD**

- **56,184 MW** all-time coincident peak load (8/21/23)
- **48,142 MW** Winter peak (2/20/25)

# What is Resource Adequacy

## SPP Regional State Committee

Primary responsibility for:

- Cost allocation for transmission upgrades
- **Approach for regional resource adequacy**
- Allocation of transmission rights in SPP markets
- Planning for remote resources

## Resource Adequacy Requirements

**Attachment AA of SPP Tarriff** requires SPP to have sufficient capacity to serve the SPP East and West Balancing Authority Areas' peak demand.

**Load Responsible Entities** are required to maintain the capacity required to meet their load and planning reserve obligations.

# SPP RESOURCE ADEQUACY CONSTRUCT

| SPP RELIABILITY | RESOURCE ACCREDITATION | RESOURCE AVAILABILITY | INCENTIVES |
|---|---|---|---|
| WINTER Resource Adequacy Requirement | Performance Based Accreditation | AVAILABILITY | PRM Sufficiency Valuation Curve |
| Planning Reserve Marge (PRM) | Effective Load Carrying Capability | OUTAGE POLICY | DEFCIENCY PAYMENT NON-VIOLATION |
| LONG-TERM PRM POLICY | | FUEL ASSURANCE | |
| | | Expedited Resource Adequacy Study (ERAS) | |

# How SPP's Resource Adequacy Construct works

SPP tasks

### Load Responsible Entity Forecast Submittals

- Load Forecasts
- Resource Plans
- Future year projections

### SPP Loss-of Load Expectation (LOLE) Study

- Evaluates 1 day in 10 years reliability standard
- Determined accredited capacity needs

### Base Planning Reserve Margin (PRM) Determination

- Establishes Base PRM from LOLE Study

### Capacity Accreditation

**Performance Based Accreditation (PBA)**
For thermal and hydro resources

**Effective Load Carrying Capability (ELCC)**
For wind, solar, and storage resources

### Accredited Planning Reserve Margin Determination

- Sets Accreditation Capacity Planning Reserve Margin (ACAP) requirements based on accreditation of thermal resources

### Compliance & Enforcement

- Review LRE submittals to comply with the Resource Adequacy Requirement
- Assesses deficiency payments

# How SPP's RA Construct works:

## Load Responsible Entities (LRE) tasks

Determine load forecasts and resource plans for the applicable future years and provide to SPP for analysis.

Submit updated load forecast and demonstrate qualified capacity in sufficient amounts to meet their load forecast and the Planning Reserve Margin (PRM) for the applicable season

- Qualified capacity can include: existing resources | new resources | bi-lateral power purchase agreements
- Qualified capacity may be internal or external to the SPP Balancing Authority
  - All qualified external capacity must have Firm Transmission Service to the SPP B.A.
- If SPP determines an LRE is deficient, LRE has 45 days to cure the deficiency: May acquire additional capacity, usually through contracts

Ensure qualified capacity is available throughout the season

All LREs have their Resource Adequacy position validated for compliance with the Resource Adequacy Requirement

Deficient LREs are assigned a Deficiency Payment in the amount of capacity shortage (Based on Cost of New Entry (CONE))

# SPP's Planning Reserve Margin Requirements

# SPP Planning Reserve Margin (PRM) Requirements

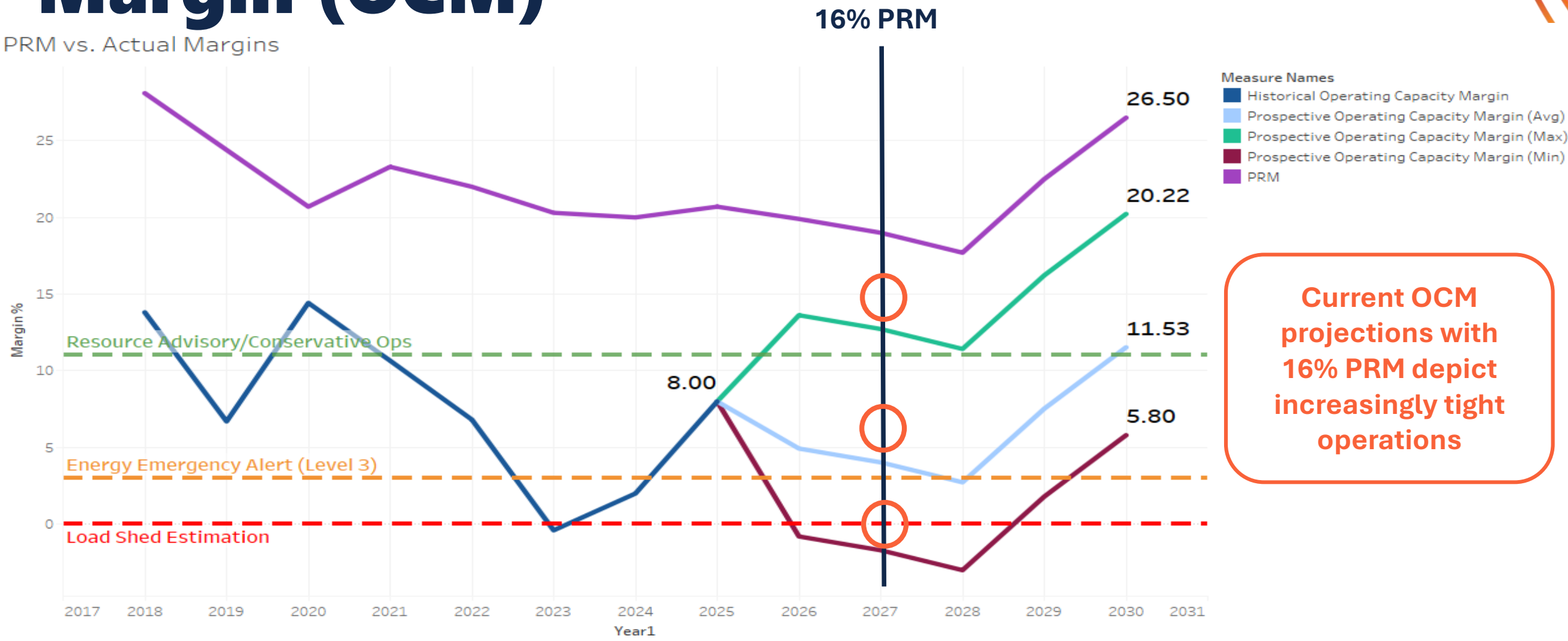
**SPP East Balancing Authority Area (BAA)**

- (Current) Summer PRM: 16%
  - 2026 Accredited Capacity PRM (ACAP PRM) – 7.06%
- (Current) Winter PRM: 36%
  - 2026-2027 Winter ACAP PRM - TBD
- Based on Loss of Load Expectation (LOLE) studies

**SPP West Balancing Authority Area (BAA)**

- (RSC/BOD Approved) Summer 2027 PRM: 19%
- (RSC/BOD Approved) Winter 2027-2028 PRM: 40%
- Based on preliminary LOLE Study in 2024-2025

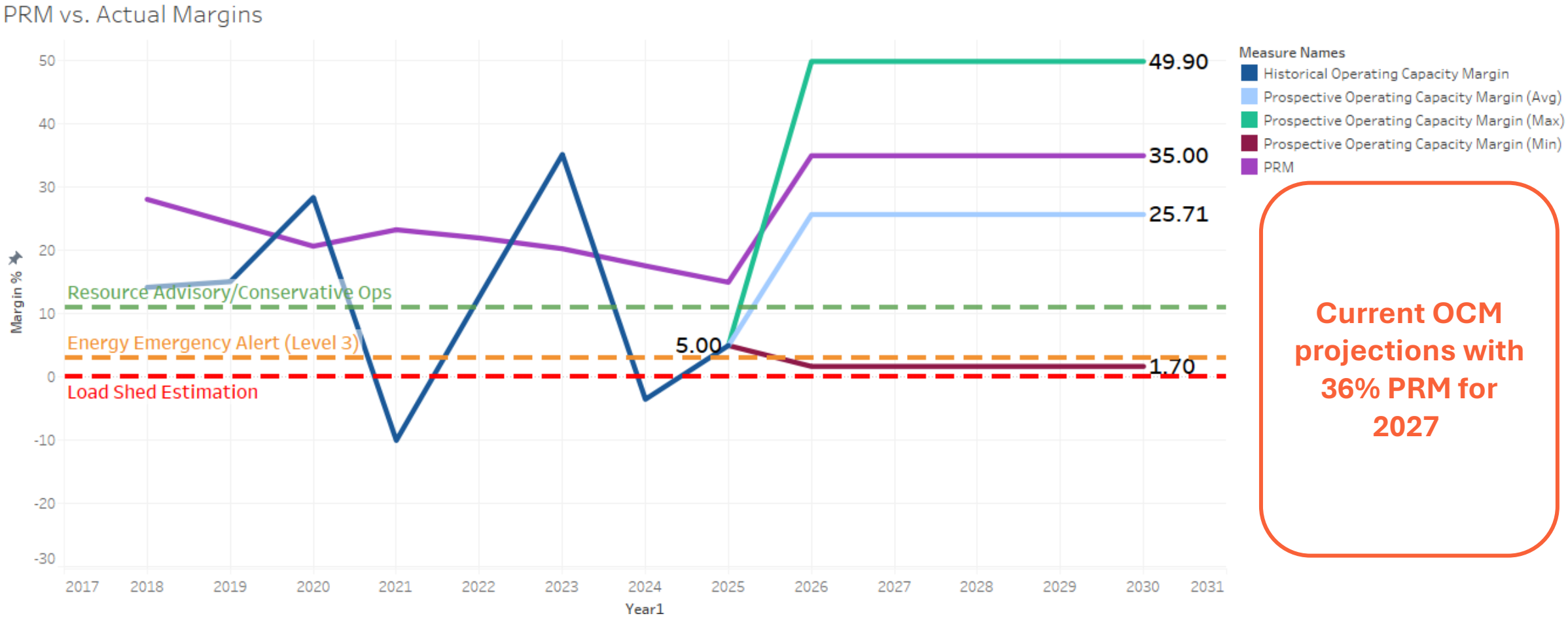
# Summer PRM vs. Operating Capacity Margin (OCM)




**Current OCM projections with 16% PRM depict increasingly tight operations**

**Operating Capacity Margin (OCM)** – Minimum value per year of total capacity MWs available minus load shown as a percentage of the load (Note the Worst Weather Event (WWE) has been excluded.)

# Winter PRM vs. Operating Capacity Margin (OCM)




**Current OCM projections with 36% PRM for 2027**

**Operating Capacity Margin (OCM)** – Minimum value per year of total capacity MWs available minus load shown as a percentage of the load

# Missouri Resource Adequacy Outlook

- Missouri's Load Responsible Entities (LRE)
  - Evergy Metro (formerly KCPL, GMO)
  - Liberty Utilities
  - City of Carthage
  - Independence Power & Light
  - City of Kennett
  - City of Malden
  - Missouri Joint Municipal Electric
  - City of Nixa
  - City of Poplar Bluff
  - City of Sikeston
  - City Utilities of Springfield
  - City of West Plains

| 2026 Summer Season Missouri Outlook | |
|---|---|
| **2026 Summer ACAP PRM – 7.06%** | |
| Capacity Resources | 8,541.55 MW |
| Firm Capacity Purchases | 1,741.04 MW |
| Firm Capacity Sales | 696.90 MW |
| External Firm Power Purchases | 198.28 MW |
| **Total Capacity** | **9,783.97 MW** |
| | |
| Summer Peak Demand | 8,906.10 MW |
| Demand Response Available | 283.29 MW |
| Internal Firm Power Purchases | 40.00 MW |
| Internal Firm Power Sales | - |
| Net Peak Demand | 8,582.81 MW |
| ACAP Planning Reserve Margin (ACAP PRM) | 7.06% |
| **Resource Adequacy Requirement** | **9,188.75 MW** |
| Excess or deficient | 595.22 MW |
| LRE Planning Reserve Margin (PRM) | 14% |

# Cost of New Entry (CONE)

# Cost of New Entry (CONE)

## What is CONE?

- Estimates the cost of constructing and operating a new reference generation resource. (Combustion Turbine – Simple Cycle Plant)

## Why Does it Matter?

- CONE serves as the basis of the Deficiency Payment for LREs found not meeting the RAR
- Outside of RA, SPP CONE serves as an economic benchmark used in transmission planning, market analysis, reliability studies, and long-term resource planning.

## CONE Updates

- Reviewed and updated periodically
- Reflects inflation, financing costs, capital costs, and technology assumptions

# SPP's Revised Cost of New Entry (CONE)

- RSC approved an update to CONE value at its February 2026 Meeting.
- CONE increased from ~$85.61/kW-year to **$139.85/kW-year**.
- The new value becomes effective for the Summer 2026 Resource Adequacy season.

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Powering Progress

# 2026 Summer Preparedness

# What is the outlook for Summer 2026?

Total Net Peak Demand

**57,245 MW**

Demand Response
**1,814 MW**

Accredited Capacity (ACAP) PRM

**7.06 %**

Resource Adequacy Requirement

**61,287 MW**

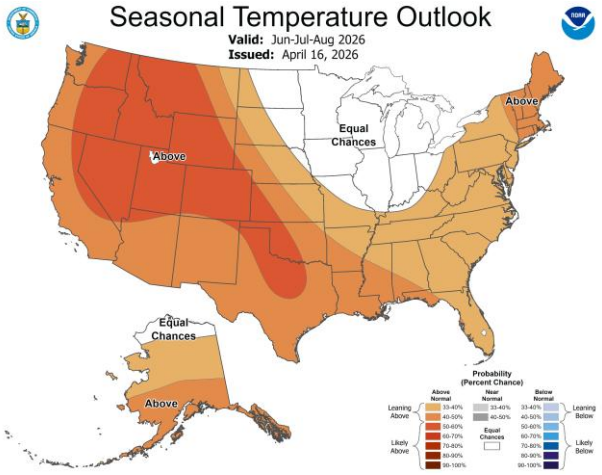
Total Capacity

**~68,000 MW**

SPP Balancing Authority Reserve Margin

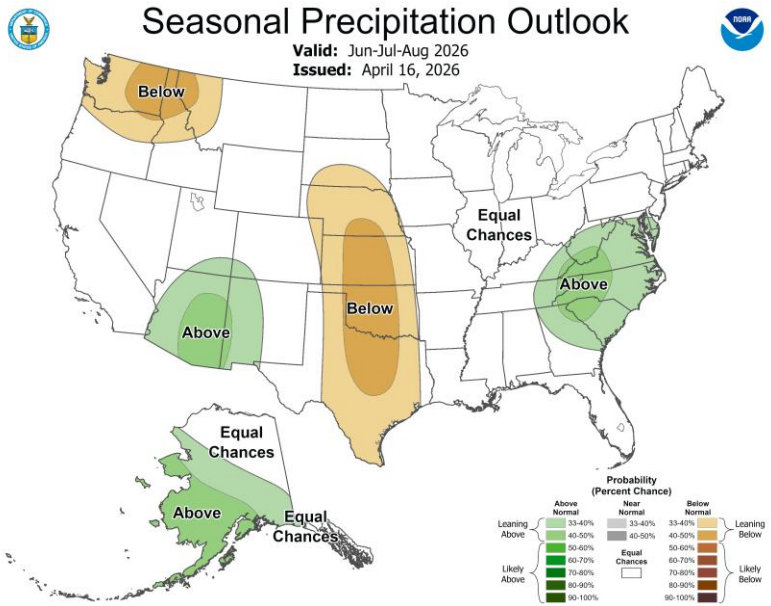
**~19%**

# Summer 2026 Outlook




Warmer than average temperatures likely for southern and western portions of the East BAA and West BAA– medium confidence

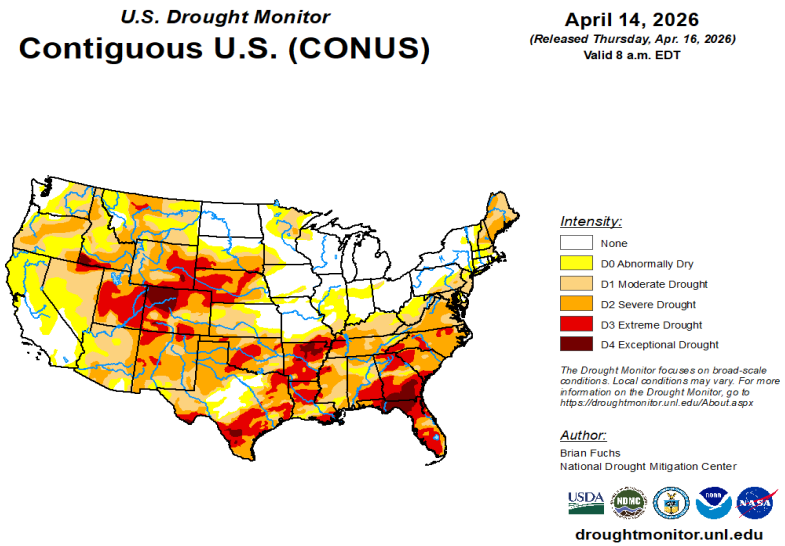
Warmer than average temperatures favored central and northern BA – low confidence




Below average rainfall favored central and southern BA – low confidence

Potential drought may worsen

Need to watch for low water levels for thermal generation




Severe to extreme drought for much of eastern BA area

Extreme to exceptional drought much of western BA area

Low water levels may impact thermal generation

Potentially low reservoir levels may impact hydro generation

# Load and Outages for Each Model

| Area | Month | Load | Transmission Outages | Generation Outages |
|---|---|---|---|---|
| SPP Eastern Interconnection | June | ~53,200MW | 69 | ~7,200MW |
| SPP Eastern Interconnection | July | ~55,400MW | 31 | ~1,300MW |
| SPP Eastern Interconnection | August | ~55,700MW | 29 | ~1,900MW |
| SPP Eastern Interconnection | September | ~52,000MW | 76 | ~12,500MW |
| SPP West RC | June | ~17,600MW | 13 | ~2,800MW |
| SPP West RC | July | ~18,500MW | 10 | ~1,700MW |
| SPP West RC | August | ~18,300MW | 10 | ~1,600MW |
| SPP West RC | September | ~16,800MW | 9 | ~3,400MW |

# SPP Summer 2026 Reliability Assessment

## Study Report

- Final Report posted on Globalscape for TOPs
- 2026 Summer Operations within the SPP Balancing Authority and Reliability Coordinator Area footprints are expected to be normal with no forecast of extreme operational situations.
- Transmission constraints and mitigations are expected to be manageable to maintain the required reliable operating criteria.
- If extreme hot temperatures, higher than normal outages, or a high amount of uncertainty occur, SPP may issue notifications of heightened grid conditions.

# Appendix

# 2025 Summer Assessment

| RTO/ISO | SELECTED DATE | EQUIPMENT | TYPE | TOTAL |
|---|---|---|---|---|
| SPP | 6/2/2025 | Lines/Transformers | Planned | 80 |
| SPP | 6/1/2024-9/30/2024 | Lines/Transformers | Unplanned | 42 |
| **SPP** | **Total** | **Lines/Transformers** | **Planned/Unplanned** | **122** |
| SPP | 9/30/2024 | Generators | Planned | ~ 8,800 MW |
| SPP | 6/1/2023-9/31/2023 | Generators | Unplanned | ~ 10,900 MW |
| **SPP** | **Total** | **Generators** | **Planned/Unplanned** | **~ 19,700 MW** |

# 2025 Seasonal Assessment Assumptions Used vs. Actual Values

| RTO/ISO | SELECTED DATE | EQUIPMENT | TYPE | TOTAL | Actual |
|---|---|---|---|---|---|
| SPP | 6/2/2025 | Lines/Transformers | Planned | 80 | 122 (9/30) |
| SPP | 6/1/2024-9/30/2024 | Lines/Transformers | Unplanned | 42 | 42 (9/30) |
| **SPP** | **Total** | **Lines/Transformers** | **Planned/Unplanned** | **122** | **163 (9/30/25)** |
| SPP | 9/30/2024 | Generators | Planned | ~ 8,800 MW | ~8,300MW (9/26) |
| SPP | 6/1/2023-9/31/2023 | Generators | Unplanned | ~ 10,900 MW | ~12,300MW (9/26) |
| **SPP** | **Total** | **Generators** | **Planned/Unplanned** | **~ 19,700 MW** | **~20,600 MW** |


# Thank you!

## CONTACT

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