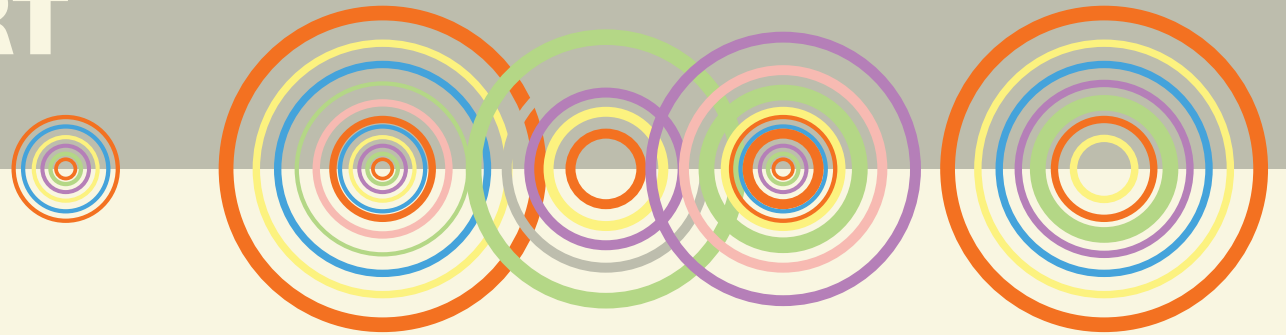


SD-9: INTEGRATED SYSTEM PLANNING MONITORING REPORT

➤ 09.15.26 ➤



Brad Underwood
Vice President and Chief Financial Officer



SD-9 INTEGRATED SYSTEM PLANNING

Integrated System Planning is the ecosystem of planning processes used to efficiently integrate the transmission system, supply and demand side resources, and the increasingly complex distribution system. Through Integrated System Planning efforts, OPPD will continually plan for, adapt to, and enable both the needs of our customers and the rapidly transforming electric industry. Successful planning will ensure both a reliable electric system and the resiliency of the system and its components to prepare for, withstand, respond to, adapt to and quickly recover from a non-routine event.

OPPD shall:

- 1 Ensure that year-round supply-side and demand-side resource capacity exceeds forecasted load in compliance with resource adequacy and planning reserve margin requirements of OPPD's regional balancing authority.
- 2 Ensure compliance with applicable planning-related North American Electric Reliability Corporation Reliability Standards, including consideration of Essential Reliability Services.
- 3 Ensure planning accounts for potential extreme weather events, changes to demand-side and supply side regional resources and extended periods of low energy production by variable energy resources.
- 4 Compute resource adequacy metrics that quantify the ability of OPPD's resources to meet its forecasted electric demand:
 - Measure the frequency with which a system's demand is expected to be met by system capacity over a period of time
 - Measure the percentage of total energy that a system is projected to be able to serve over a period of time.

SD-9 INTEGRATED SYSTEM PLANNING



- 5 Update the board on at least a quarterly basis as to its progress in developing new bulk electric system resources, engage the board in key decisions, and obtain annual board affirmation on current plans for developing new bulk electric system resources.
- 6 Achieve the following resource volumes by dates indicated:

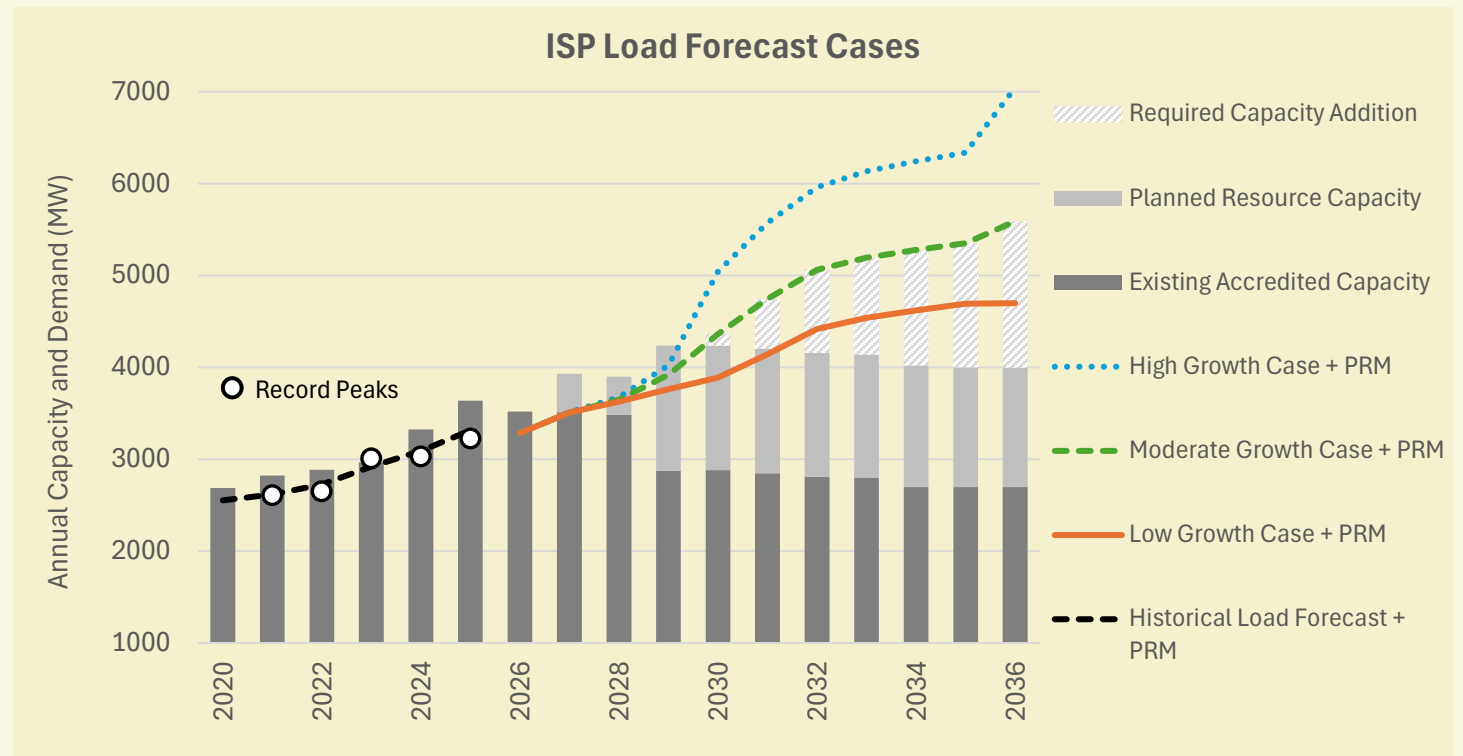
RESOURCES (Nameplate or Peak Tested Capacity)	RANGE OF INCREMENTAL ADDITIONS (MW)
Renewable Generation	1,000 - 1,500 MW
Contracted by the end of 2024	200 MW
Contracted by the end of 2026	400 MW
Contracted by the end of 2028	300 MW
Contracted by the end of 2030	100 MW
Energy Storage	Approximately 125 MW
Contracted by the end of 2026	50MW
Contracted by the end of 2027	75MW
Dual Fuel Combustion Turbines	600 – 950 MW
Contracted by the end of 2025	600MW
Demand Response	Minimum of 32 MW
On-site fuel oil storage for year-round accreditation for approximately 320 megawatts (MW) of existing natural gas-fueled generation assets	Approximately 320 MW
Contracted by the end of 2025	320MW

SD-9 INTEGRATED SYSTEM PLANNING

1

Ensure that year-round supply-side and demand-side resource capacity exceeds forecasted load in compliance with resource adequacy and planning reserve margin requirements of OPPD's regional balancing authority.

- Over the past 5 years, OPPD has experienced **record setting growth and peak demand**.
- This growth coupled with evolving, more stringent Southwest Power Pool (SPP) Planning Reserve Margin (PRM) requirements has created resource adequacy challenges.
- Despite these challenges, **OPPD has satisfied the SPP PRM requirements** each of these years including the current year 2026.
- OPPD continues to experience substantial growth and is advancing a diverse mix of new resources to meet near-term resource needs.
- OPPD is continually evaluating potential needs for additional resources as part of its **2026 Integrated System Plan (ISP)**.

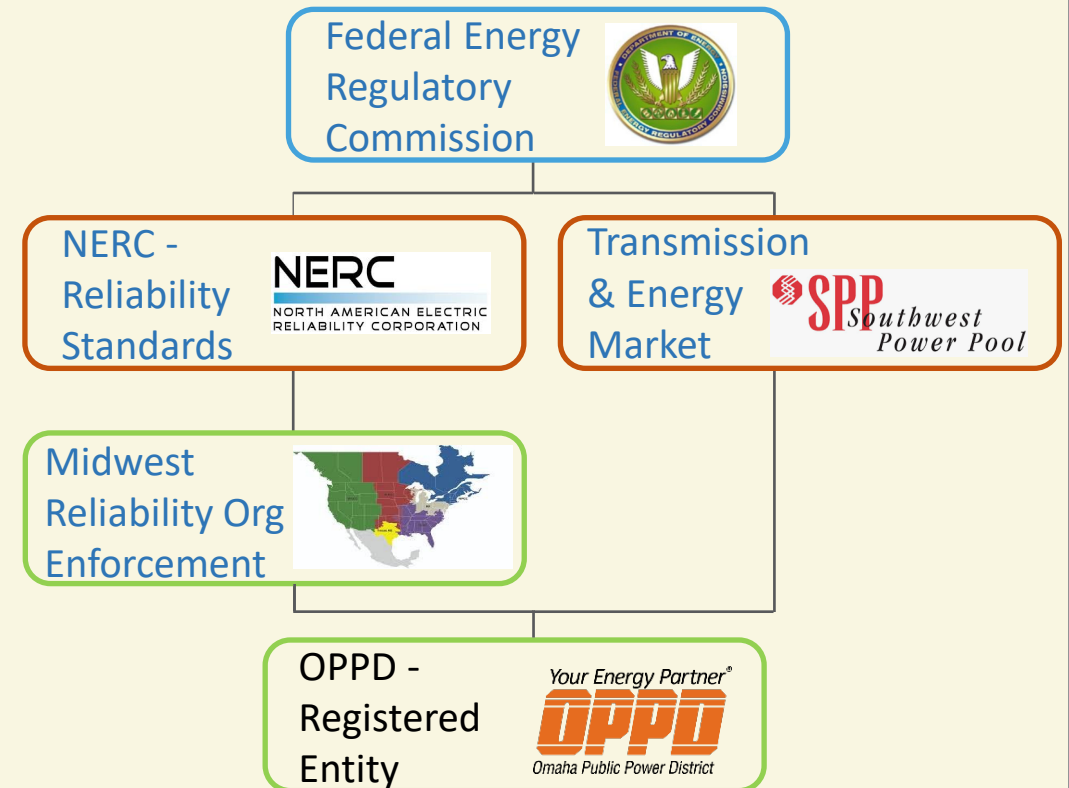


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2

Ensure compliance with applicable planning related to North American Electric Reliability Corporation Reliability Standards including consideration of Essential Reliability Services.

- Federal NERC Reliability Standards define the reliability requirements for planning and operating the North American bulk power system.
- **OPPD has complied with NERC planning standards** with no enforceable violations for the planning standards since the last SD-9 update.
- Essential Reliability Services have been incorporated into expansion planning.
 - Voltage support, Frequency Response & Load ramping/balancing
- Grid Reliability regulations and guidelines continue to evolve due to the changing electric industry landscape.

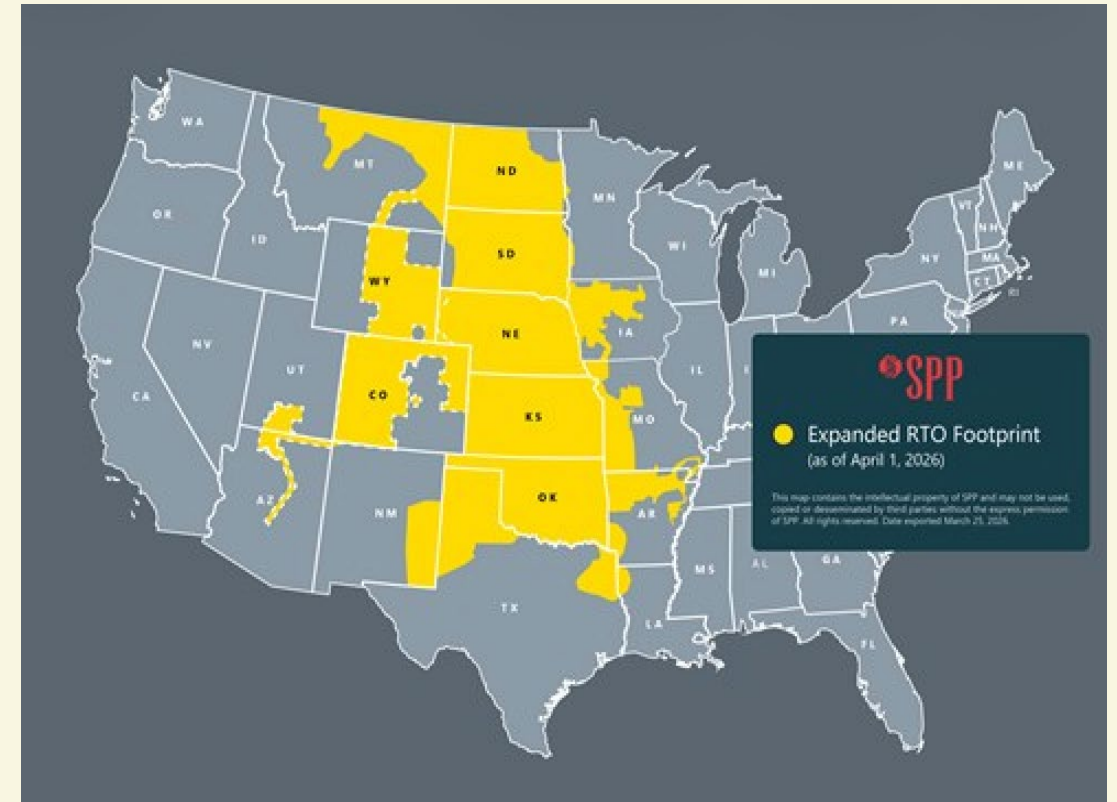


SD-9 INTEGRATED SYSTEM PLANNING

3

Ensure planning accounts for potential extreme weather events, changes to demand-side and supply side regional resources and extended periods of low energy production by variable energy resources.

- SPP initiated enhancements to its regional resource adequacy and transmission expansion planning policies based on recent extreme weather events.
- **Several key SPP resource adequacy policy changes** were advanced and approved by FERC in 2025. These include:
 - Performance Based Accreditation (PBA)
 - Fuel Assurance (FA)
 - Effective Load Carrying Capability (ELCC)
 - Planning Reserve Margin (PRM) calculation change (ICAP to ACAP)
 - Demand Response and Peak Demand Assessment Policy; **Filed at FERC in 2026 and pending FERC approval**
- SPP incorporated extreme weather analysis into its annual regional transmission planning process and recently developed **landmark regional transmission expansion** plans.



SD-9 INTEGRATED SYSTEM PLANNING

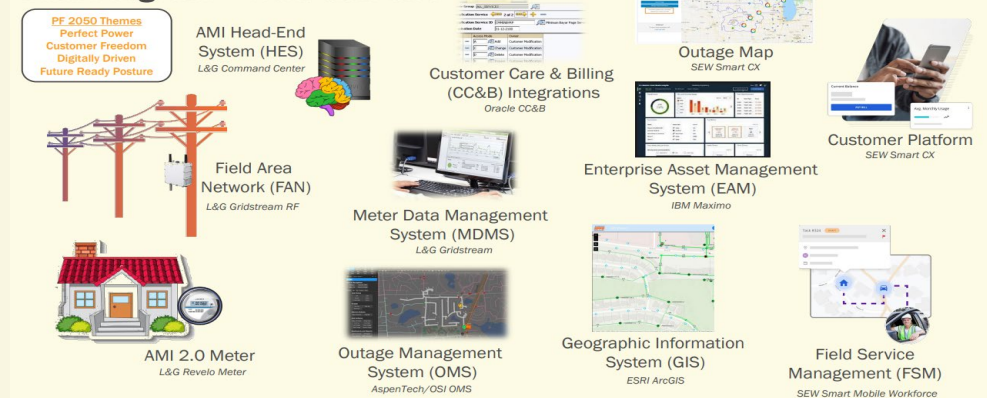
3

Ensure planning accounts for potential extreme weather events, changes to demand-side and supply side regional resources and extended periods of low energy production by variable energy resources.

- OPPD continues to identify opportunities to **harden, expand, and modernize its generation and grid delivery infrastructure** to help withstand extreme weather events and accommodate the changing generation resource mix. These include:
 - Extreme weather hardening and programmatic readiness of the generation fleet.
 - Increasing dual fuel flexibility and extreme temperature operation at expanding balancing stations.
 - Hundreds of miles of new or rebuilt transmission facilities underway.
 - Grid modernization efforts progressing with Advanced Metering Infrastructure (AMI) and Distribution Automation (DA) infrastructure rollout and Distributed Energy Resource (DER) integration readiness efforts.



AMI Program – Next Gen Grid



SD-9 INTEGRATED SYSTEM PLANNING

4

Compute resource adequacy metrics that quantify the ability of OPPD’s resources to meet its forecasted electric demand:

- Measure the frequency with which a system’s demand is expected to be met by system capacity over a period of time
- Measure the percentage of total energy that a system is projected to be able to serve over a period of time.

- System Resource Adequacy modeling simulates the capability of OPPD’s resources to meet OPPD’s electric demands under a range of stressed conditions.
- OPPD’s system has never been more dynamic with the size of load increases and the quantity of generation changes underway. This results in an increased reliance on the SPP market to support local resource adequacy until expansion of OPPD’s generation portfolio is completed.
- OPPD’s next update to system resource adequacy metrics will occur as part of the **2026 Integrated System Planning Process**.

Resource Adequacy Reliability	2023 (Prior Study)	2027 (2026 ISP In-Progress)	2030 with Near Term Generation (Prior Study)
Frequency Basis (1-LOLE)	92.05%	Pending new number in 2026 ISP	99.99%
Energy Basis (1-EUE)	99.83%	Pending new number in 2026 ISP	99.99%

Note: The completion of OPPD’s Turtle Creek Station units 1-2, Platteview Solar Facility and Standing Bear Lake Station in 2025 improves OPPD’s local system resource adequacy metrics from the 2023 period.

SD-9 INTEGRATED SYSTEM PLANNING

5

Update the board on at least a quarterly basis as to its progress in developing new bulk electric system resources, engage the board in key decisions, and obtain annual board affirmation on current plans for developing new bulk electric system resources

- New Generation and Transmission updates were provided to the board on a quarterly basis or more frequently since the last SD-9 monitoring report.

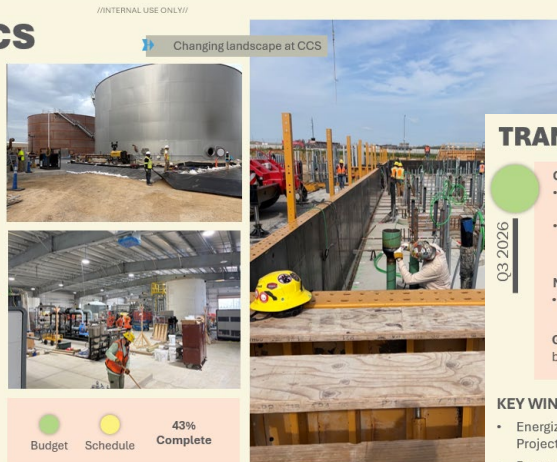
PROGRESS: CCS

Q3 2026

- Crews set to fill fuel tank one with the remainder in fall
- Unit 3 foundation pour complete
- Facility Response Plan submitted to EPA for response to fuel oil storage
- Mobilization for substation build expected in October

KEY WINS AND RISKS

- Dual fuel conversion schedule **challenged**, but new gen schedule on track
- Foundation pour gained **efficiencies** from lessons learned at Turtle Creek Station
- OPPD Operations training coming up in September



TRANSMISSION & SUBSTATION

Q3 2026

Cass-to-Sarpy T-Line

- Construction ahead of schedule. More than 93% of foundations and 65% structures complete.
- Transmission line stringing near Turtle Creek Station is complete. Foundations complete at Cass County Station with poles and wires slated for this month.

North Douglas County T-Line

- Segment 1 & S971 Cap Bank: Energized. Segment 2: Distribution relocation. Segment 3: Transmission construction underway.

Gretna Substation construction underway with transformer and breakers delivered in July.

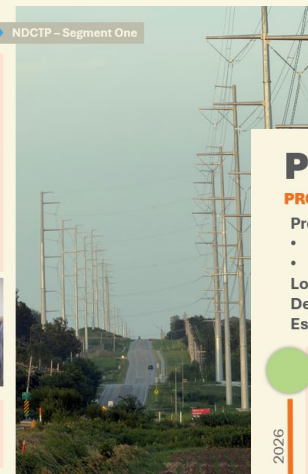
KEY WINS

- Energization of North Douglas County Transmission Project's **first segment ahead of schedule**
- Progressing with **public engagement** and routing of key transmission line projects: Olde Towne Bellevue, Arboretum to Midtown, and Cass to Nebraska City.

Olde Towne Meeting

Budget Schedule

NDCTP - Segment One



PIERCE COUNTY ENERGY CENTER

PROJECT OVERVIEW & STATUS

Project Nameplate Capacity

- Solar: 420 MW
- Energy Storage: 170 MW

Location: Pierce County, Nebraska

Developer: NextEra Energy Resources

Estimated Commercial Online Date: May 2027

Enhanced structure providing an optimized partnership among OPPD, Google and NextEra Energy Resources

Contingent items update:

- Firm network transmission service received

Construction activity progress

- County road construction: 100%
- Site grading: 100%
- Racking installation: 100%
- Panel installation: 70%
- Battery Installation: in progress



Pierce County Solar

SD-9 INTEGRATED SYSTEM PLANNING

-  Complete
-  On Track
-  Challenged
-  Delayed



6

Achieve the following resource volumes by dates indicated:

Resources	Year	Contracted Target	Status	
Renewable Generation	2024	200MW		Complete: Executed High Banks Wind Capacity Contract
	2026	400MW		Complete: Executed High Banks Wind Capacity Contract
	2028	300MW		Complete: Executed Milligan Wind Purchase Power Agreement
	2030	100MW		Complete: Executed Pierce County Energy Center Solar/Battery Purchase Power Agreement
Energy Storage	2026	Approx. 50MW		Complete: Executed Pierce County Energy Center Solar/Battery Purchase Power Agreement
	2027	Approx. 75MW		Complete: Executed Pierce County Energy Center Solar/Battery Purchase Power Agreement
Dual Fuel Combustion Turbines	2025	600MW		Complete: Equipment and EPC contracts executed and work underway at Turtle Creek Station (Unit 3) and Cass County Station (Units 3, 4 & 5).
Demand Response		Min. of 32MW		Challenged: SPP DR policy pending at FERC. Policy clarity is needed prior to program optimization and promotion.
On-Site Fuel Storage	2025	Approx. 320MW		Complete: Equipment and EPC contracts executed and work underway at Cass County Station.

RECOMMENDATION

- The System Management & Nuclear Oversight Committee has reviewed and accepted this Monitoring Report for SD-9 and recommends that the Board find OPPD to be sufficiently in compliance with the Board Policy SD-9.

Any reflections on

- what has been accomplished, challenges and/or strategic implications?

