

Near Term Generation

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Vice President, Systems Transformation

August 15, 2023



Purpose

Review OPPD's near-term generation needs and proposed revisions to Strategic Directive (SD) 9

Agenda

- Review “Near Term Generation” proposal
- Discuss proposed revisions to SD-9: Integrated System Planning

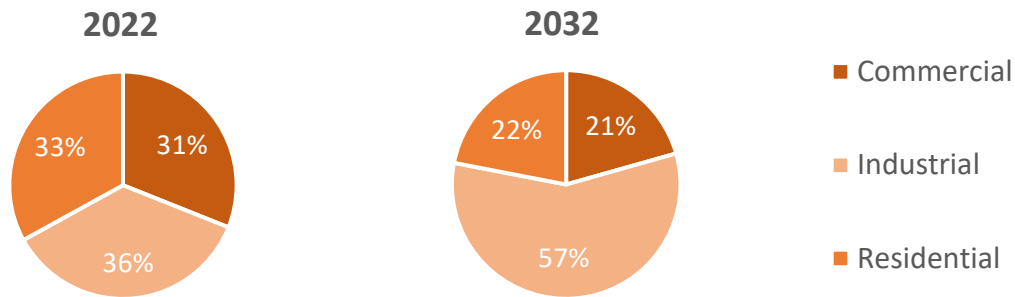
Key Drivers

Residential, Commercial, Industrial Growth

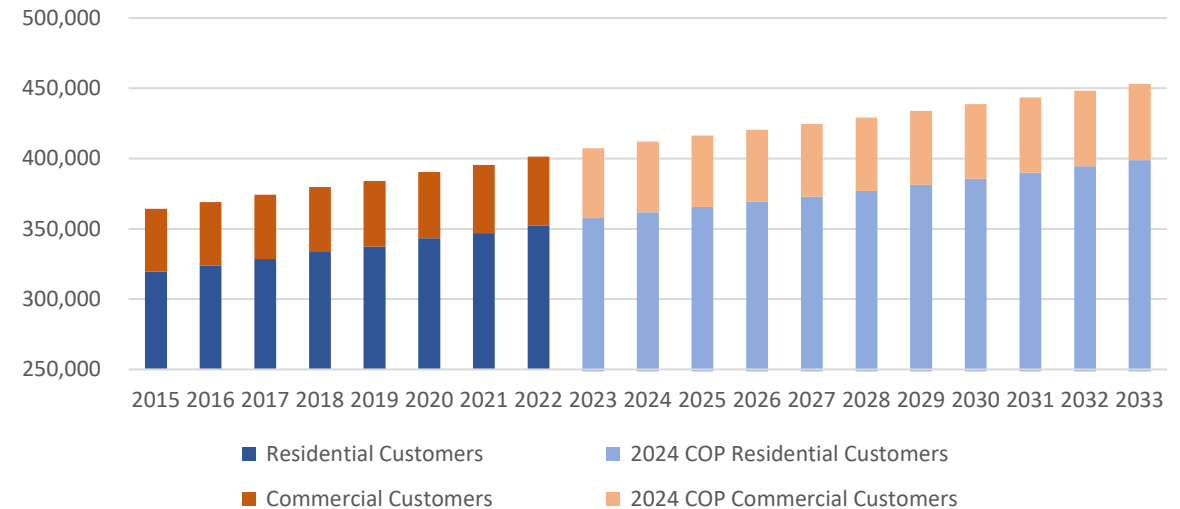
- Multi-year load growth is exploding:
 - Residential, Commercial and Industrial loads
- Largest consumption expansion primarily in the industrial class.
 - Data centers are supporting more of our daily functions.

Planned Industrial Load Growth

- Electrification
- Biotech
- Manufacturing
- Data Centers (Fintech)
- Food Processing
- Agricultural Processing



Average Annual Commercial and Residential Customers
Historic Actual and 2024 COP Forecast



Load Growth & Implications

Customers and Other Agencies/Organizations are Waiting and Taking on Risk

- Some customers are taking **financial risk** while OPPD thoughtfully works to plan for and deliver service to their projects.
 - Energy service delays can disrupt land availability, supply chain, permitting and cost plans on customer projects.
- Without **clarity of service timelines** provided by a defined resourcing plan, projects may decide to look **outside of eastern Nebraska**.
- Many of these projects involve state agencies, counties, cities and other infrastructure – **working in parallel** – that are essential to supporting these customer projects and potential OPPD service uncertainty places risks to others.
- Many local and state **programs and incentives** being offered to assist these businesses and service uncertainty places risk on state and local financial economic development packages.

Call to Action

Abnormally Long Lead Times

- Manufacturing production slots are being occupied at increasing volumes for **long lead time, major equipment purchases** (i.e. step up transformers).
 - Over the last few quarters, the completion dates continue to extend at a concerning rate.
- In addition to manufacturing production slots, workforce availability for specialty firms offering **Engineer, Procure and Construction services remains challenged**.
- If supply resources are not secured and “deliverable” to OPPD load by 2028, **the District faces a significant forecasted capacity deficit**.



Image credit: Shutterstock/Alexey Krav


Board Feedback

Near Term Generation Governance

- Broad support for the technical recommendation but uncertainty remained around how the Board would interact with Management in key decision making and project execution.
- The Systems Management and Nuclear Oversight Committee consolidated board feedback for expectations related to decision making and execution.
- These expectations can be summarized in the following themes:
 - Frequency of Board updates on progress
 - Board involvement in key decisions
 - Annual board affirmation of current plans
 - Chronological goals for resource contracting
- The Systems Management and Nuclear Oversight Committee recommends to the Board that a revision to “SD-9: Integrated System Planning” is the best place to house the Board’s expectations of Management.

SD-9: Resource Planning Board Policy Refinement Discussion



	OMAHA PUBLIC POWER DISTRICT Board Policy	Category:	Strategic Direction
	Policy No. and Name: SD-9: Integrated System Planning	Monitoring Method:	System Management and Nuclear Oversight Committee
		Frequency:	Annually
Date of Approval:	October 15, 2015 April 21, 2022 August 18, 2022	Resolution No.:	6082 6494 6516

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:

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

“Governance exists in order to translate the wishes of an organization’s owners into organizational performance.”
 - John Carver



Refinement Process: Strategic Directives




System Committee Review: July 13, 2023

Is there anything that requires further clarification?

Is there anything you especially like?

Is there anything that you'd like the Committee to consider before moving this forward for public review and comment?

 Omaha Public Power District	OMAHA PUBLIC POWER DISTRICT Board Policy	Category: Strategic Direction	System Management and Nuclear Oversight Committee
	Policy No. and Name: SD-9: Integrated System Planning	Monitoring Method: Annually	Frequency: Annually
Date of Approval:	October 15, 2015 April 21, 2022 August 18, 2022 [insert date]	Resolution No.:	6082 6494 6516 [XXXX]

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 - Measure the percentage of total energy that a system is projected to be able to serve over a period of time.
- 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.
- 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

***TERMS AND DEFINITIONS**

Bulk Electric System: Facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof) and electric energy from generating facilities needed to maintain transmission system reliability.

Feedback & Outreach – July 24 to August 13, 2023

Board Feedback

- Alterations were made to account for enhanced governance related to OPPD’s “Near Term Generation” proposal and included the following subjects:
 - Frequency of Board Updates on progress
 - Board involvement in key decisions
 - Annual board affirmation of current plans
 - Chronological goals for resource contracting

Outreach Effort

- Posted on OPPD Community Connect July 24th
 - 23 comments received
- Board/Executive Leadership Team Contact Center
 - 5 comments received



Next Step

- Option 1: Board Resolution and Vote

OR

- Option 2: Additional Committee Deliberation