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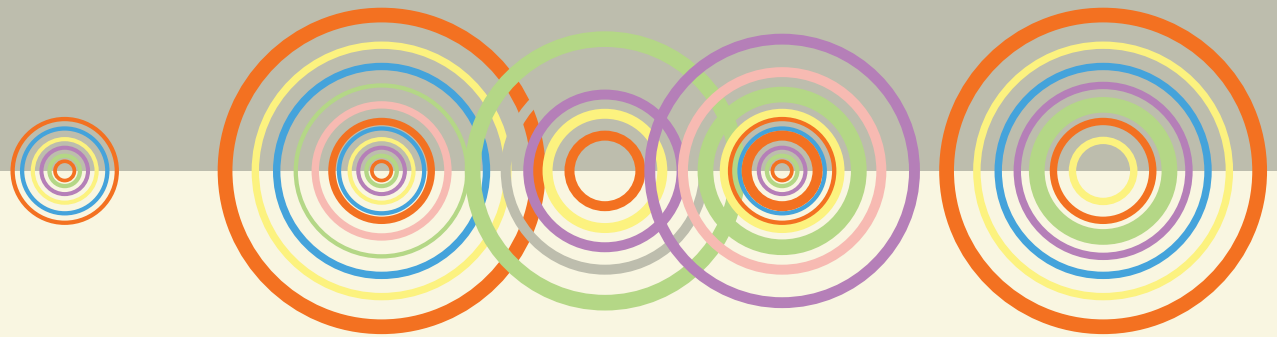
THE FUTURE OF RENEWABLE ENERGY FOR THE AG INDUSTRY



OPPD
Omaha Public Power District

Cliff Fleener, VP of Sustainability and Environmental Affairs

LOAD GROWTH CHALLENGES

OPPD Net Peak Demand		
Year	MW	% increase
2025	2882	**7.3%**
2024	2687	**5.9%**
2023	2538	**4.3%**
2022	2434	**4.2%**
2021	2337	**2.5%**
2020	2279	
*SPP Resource Adequacy Report		

By 2030 Load Is Expected To Double.

New OPPD Generation

June 2025 - Turtle Creek Station - 250MW

Coming in 2025
Standing Bear Lake Station - 150MW

Increased Load in Nebraska: Demand is rising sharply due to expanding industries, including those for cloud computing, AI, and ethanol production. We need to build quickly to match demand.

Reliability and Resource Adequacy: Southwest Power Pool (SPP) regulations require more "always available" generation capacity, Diversifying generation is essential to modernizing the grid for resilience against extreme weather events.

FARMING CHALLENGES FACING NEBRASKA

- **Economic Challenges**
  - 40% drop in corn prices over 3 years.
    - July 2022 – July 2025 (USDA-NA).
  - Rising Fertilizer Prices
    - Phosphates, 60% increase in 10 years.
    - Urea ammonium nitrate, 37% increase in 2025.
  - Global trade uncertainty are impacting the ag industry both for exports and essential inputs.
  - Nebraska GDP contracted by 6.1% in Q1, 2025.
- **Electricity is essential for irrigation, processing, and safety.**

Solar Project Challenges

- Siting, ≥500 acres
- Proximity to transmission lines and infrastructure
- Supply chain impacts
- Public perception
- Local zoning requirements (largest roadblock)

81 MW, Platteview Solar, Yutan, NE

Renewables – Have The Potential To Help Both Utilities And The Ag Economy

- **Benefits to Landowners:**
  - **Reoccurring Revenue: Leases for solar provide the landowner with higher reoccurring revenue especially on low margin land.**
  - **Reducing Water Demand: Solar requires no water reducing demand on aquifers.**
- **Opening Markets: Can broaden access to new markets.**
  - **Bioplastics, Ethanol, Sustainable Aviation Fuel, Food Products.**

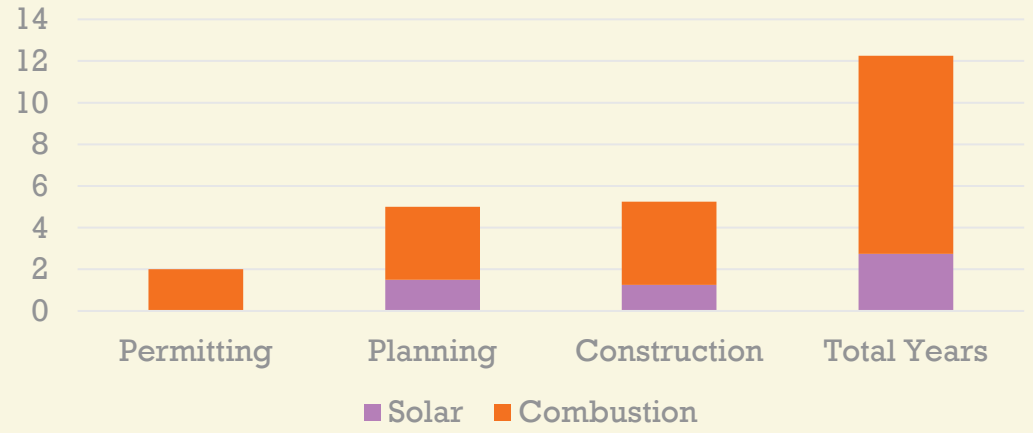
The Quick Build: Unlocking Solar's Speed Advantage

- **Timeliness:** Average build times are much quicker than building out thermal generation such as combustion turbines.

- **Solar**
  - 2 - 3 years total
  - 12 - 18 months of construction
  - 1 - 2 years of planning

- **Combustion Turbines**
  - 6 - 10+ years total
  - 4+ years of construction
  - 2-5 years of planning
  - 1-4 years of permitting

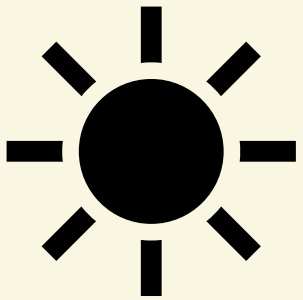
- **Key Benefits**
  - No fuel expense
  - No air emissions
  - No noise
  - No water discharges



Working With Ag Supply Chains to Demonstrate the Value of Utility Grade Solar

- **Ethanol Industry – market size: $114 billion, largest supply chain for corn in Nebraska.**
- **Potential Benefits From Utility Grade Solar.**
  - **Renewable Energy Credits (RECs) –45Z Clean Fuel Production Credit – allows ethanol producers to offset the emissions from grid electricity with attributed solar RECs.**
  - **Opening New Markets- Finding new ways to utilize utility grade renewables to improve margins and reduce barriers to new markets.**
  - **Reduce water use and stress on aquifers.**
  - **Can be sited on low margin land.**
- **Focus on working with existing supply chains to unlock new value for the entire industry, to improve margins and grow our economy.**

BREAKING DOWN BARRIERS TO UTILITY GRADE RENEWABLES IN NEBRASKA



Action Items:

- Engagement - listen and learn from rural decision makers.
- Educate growers, buyers, local leaders on the benefits of utility grade renewables in rural Nebraska.
- Create tools that identify opportunities.
- Work with supply chains to create value for all stakeholders.
- Work with State, Federal, and local Gov't to speed approval and address concerns.
- Be Creative – expanding market access and identifying suitable low margin land.

FINDING PARTNERS FOR SOLAR SITING AND PLANNING

- Working with stakeholders to train agronomists to develop crop management plans that support 10 million acres that currently don't have one.
- Developing GIS databases for identifying and siting best candidates for projects.
  - Sizing
  - Marginal crop production
  - Access
  - Vicinity to transmission and load demand
  - Exploring reuse of properties for example, Superfund sites

MUTUALLY BENEFICIAL PARTNERSHIPS FROM RENEWABLE ENERGY

Electric Utility

- Quickly built
- Provides MWs during summer
- Requires no fuel cost

Farmers

- Recurring revenue on low margin land.
- Potentially higher commodity prices
- Reduces stress on aquifers

Buyers (SAF, ethanol suppliers, food manufacturers)

- Better carbon intensity score
- Increased access to markets
- Potentially better CI scores

QUESTIONS