



President's Report

February 17, 2022



January Baseload Generation

- Nebraska City Unit 1 – Capacity Factor: 65.9%
- Nebraska City Unit 2 – Capacity Factor: 50.9%
- North Omaha Unit 4 – Capacity Factor: 67.3%
- North Omaha Unit 5 – Capacity Factor: 52.3%

January Peaking Generation

- Cass County – Capacity Factor 0.4%
- Jones Street – Capacity Factor 1.4%
- North Omaha Unit 1 – Capacity Factor 0%
- North Omaha Unit 2 – Capacity Factor 0%
- North Omaha Unit 3 – Capacity Factor 0%
- Sarpy County – Capacity Factor 1.1%

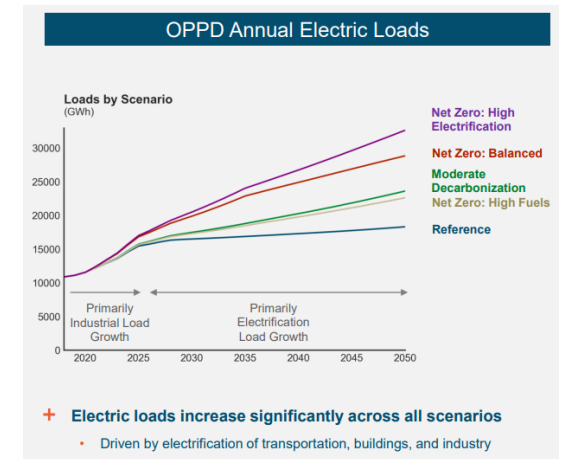
January Renewables

- Renewable energy contributed 40% of OPPD's retail energy sales.
- Wind capacity factor of 51%
- Capacity Factor for Community Solar 11.2%.

Decarbonization Cost Calculations

Key Assumption Determination For The Next ~30 Years

- How much future load will there be?
 - Various sectors of the economy including transportation, buildings, industry and agriculture become increasingly electrified **increasing total load**. Along with normal population and economic growth, this will increase total system demand for the balanced scenario **by approximately 2.5 times 2020 levels**.
 - These increased loads result in higher volume of retail electric sales and require more system resources & other infrastructure
- What are the options to serve the load and how much will they cost?
 - **Candidate Resources** wind, solar, li-ion batteries, flow batteries, hydrogen-enabled gas turbines, gas with carbon capture & sequestration, small modular reactors, seasonal energy storage, demand response, energy efficiency, distributed solar, distributed storage, coal-to-gas repower
 - **Technology Availability** Technology maturity assessment from the International Energy Agency
 - **Candidate Resource Cost** Latest public estimates from the National Renewable Energy Laboratory (NREL), including forecasted capital costs and financing assumptions.
 - **Fuel Prices** Natural gas and coal forecasts are based on the 2021 Energy Information Administration Annual Energy Outlook
 - **Transmission** OPPD to SPP transmission limit modeled + interconnection and deliverability cost adders for candidate resources
 - **Load Flexibility** existing/planned/candidate demand response, managed EV charging.



Decarbonization Cost Calculations

Model Various Assumption For ~30 Years in Competitive Power Markets

- Modeling requires:
 - Utilizes detailed production cost modeling to simulate the electric grid, which is standard industry practice and is algorithmically and computationally intensive. This study used E3's *Resolve* tool
 - Includes all OPPD and SPP resources and loads, considering transmission limitations and OPPD's ability to import and export electricity
 - Includes extensive data, including existing and candidate resources, resource cost data (capital, operations & maintenance), 30 years of forecasted electric demand data, fuel forecasts, and other costs of operations
 - Simulates 30 years of electric grid market operations at an hourly level. Portfolio operating costs are aggregated at an annual level and include all costs to generate electricity from OPPD's entire portfolio.
 - Calculates Net Present Value compared to a 'business as usual' reference scenario without decarbonization to determine the incremental cost magnitude.
 - Incremental cost is compared to average current retail rates to provide a relative estimated cost comparison, which will vary by class and by rate.



Decarbonization Cost Calculations

How Will We Get To 2050?

- Monitor
 - Many of the regulations, technologies, costs, fuel, power prices, load profiles and other electric system attributes will change and evolve over 30 years and effective monitoring will be key.
- Deliberate Tension
 - The Board has given us clear directional goals on affordable rates, reliability and environmental stewardship to inform our decision making.
- One Foot in Front of the Other
 - We'll get to the 2050 system one decision at a time, thoughtfully and intentionally.

Residential Solar Rebate Launch

- OPPD's first ever Solar Rebate to launch in February
- 10 rebates available at \$5,000 each[†]
- Rebates will be pre-approved and funding reserved for 120 days



NCEA

In partnership with the Nebraska Community Energy Alliance and grant funding provided by the Nebraska Environmental Trust

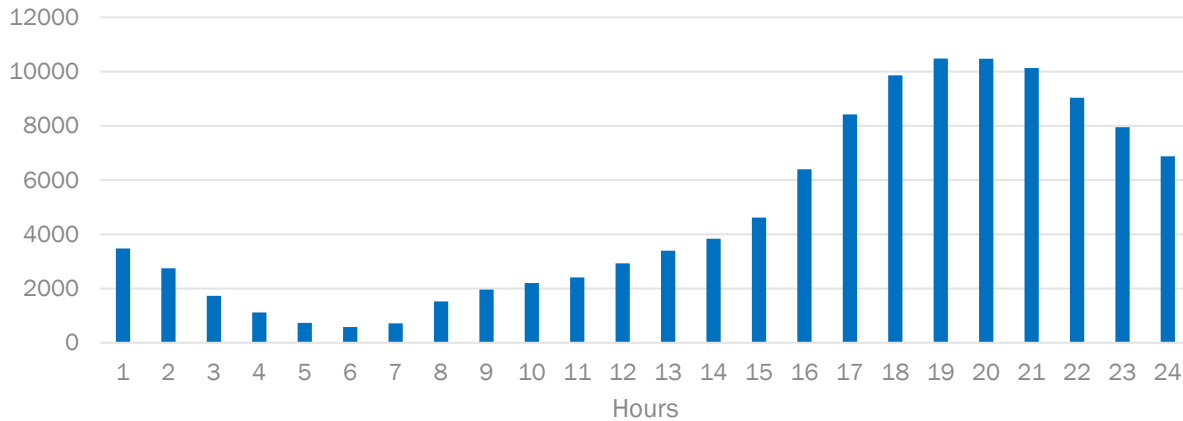


EV Exhibit at the Midlands Auto Show



Residential EV Charging Behavior

Cumulative Hourly Charging - Jan. 2022



Rebate Funding Since 2018

Rebate Type	Total Grant Dollars Provided
Car + Charger	\$751,500
Charger Only	\$229,000
Fleet Car + Charger	\$10,000
Off-Peak Charging	\$1,800



EMISSIONS REDUCED†

3,045,600 lbs



ENERGY DISPENSED†

2.45 GWh



AVERAGE SESSION LENGTH†

13h 24m



AVERAGE TIME CHARGING†

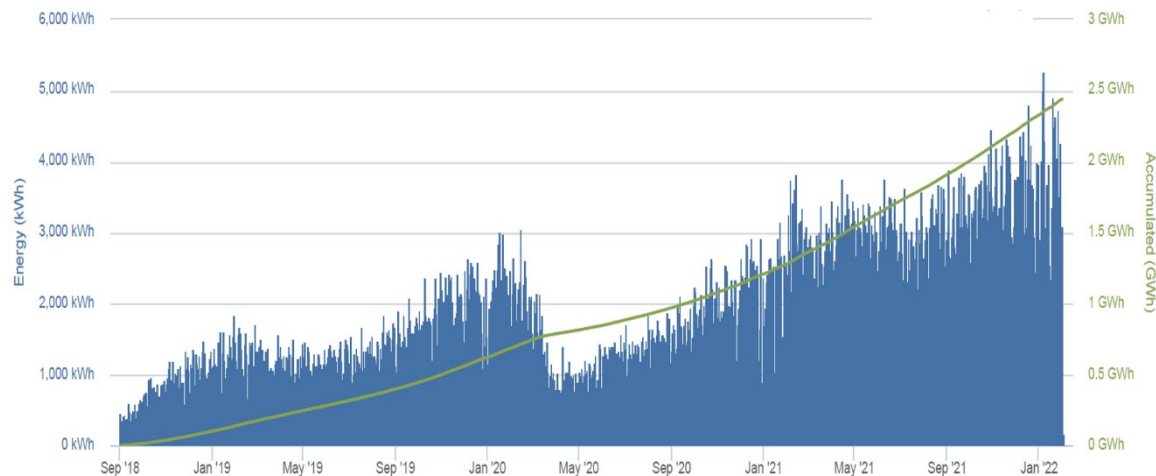
2h 26m

Residential EV Charging Behavior

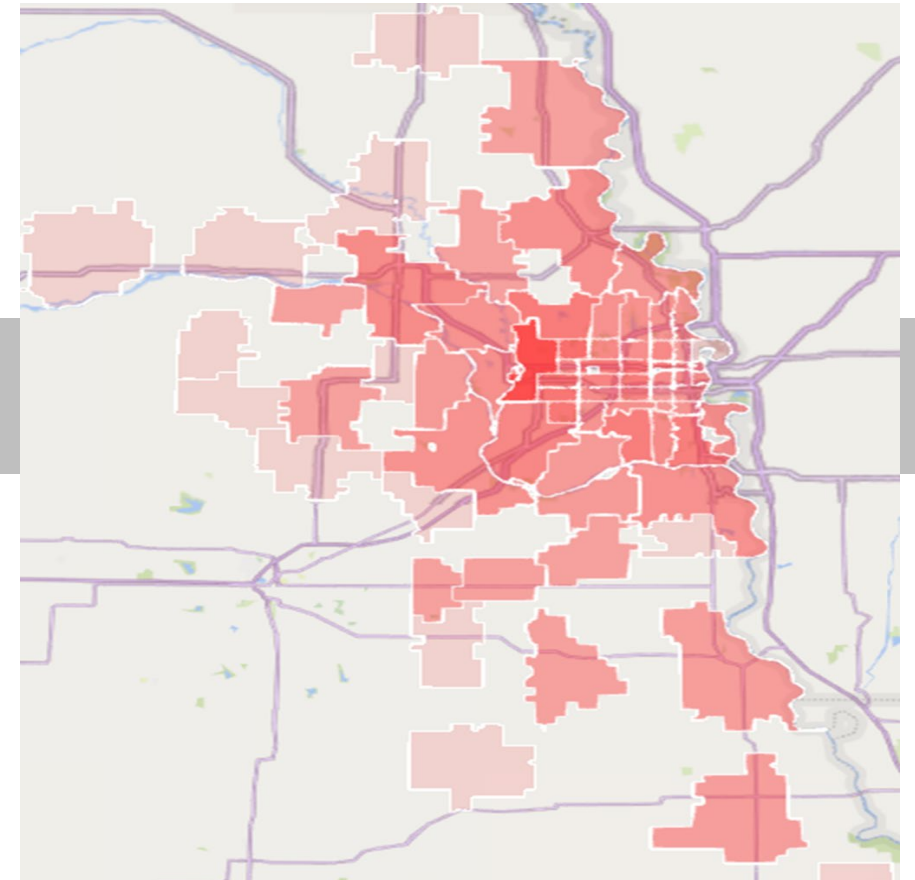
EV Ownership Trends†

	2018	2021	% Growth
U.S.	1,000,000	2,000,000	100%
Nebraska	710	2,252	317%
OPPD	400	1,534	384%

Cumulative EV Charging Consumption



EV Zip Code Concentration

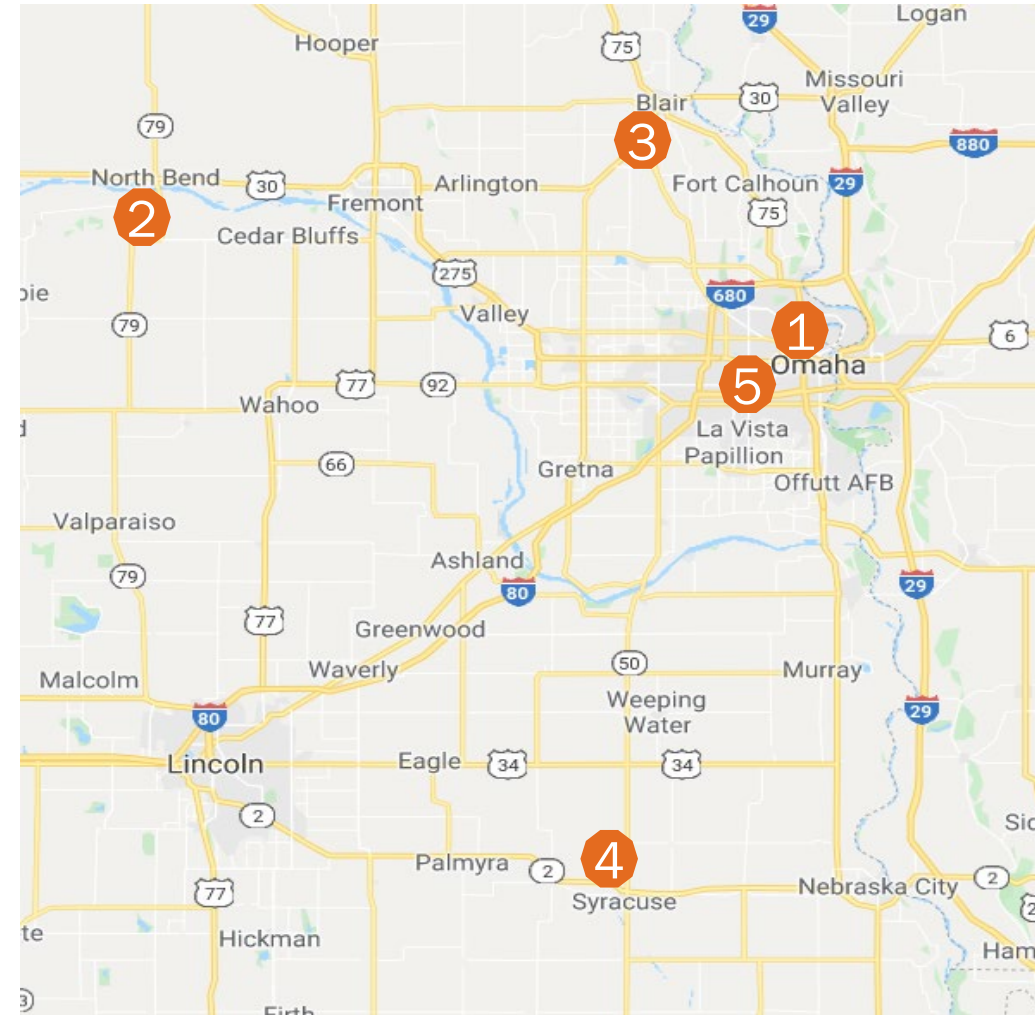


Continued Growth in Public Charging Stations

- New Charging Stations have joined the district!
- As of January 21st, all five locations are Energized and Charging!
 - City of Omaha – 17th & Chicago
 - Casey's – North Bend
 - Casey's – Blair
 - Casey's – Syracuse
 - Cabela's – LaVista



In partnership with the Nebraska Department of Environment and Energy and grant funding provided by the VW Settlement Trust



OPPD EV Ride and Drive Event – June 4th

Join us at this community-centered event in Elmwood Park in conjunction with the Taste of Omaha Event

- Test Drives
- Vehicle Demos
- Chat with EV Experts
- Charging 101



Integrated Resource Plan



Integrated Resource Plan (IRP)

- 5-year plan, includes planned Power with Purpose actions
- Findings from the Pathways to Decarbonization Energy Portfolio Workshops are incorporated into OPPD's IRP filing in February
- Virtual presentation about the IRP was held Feb. 3. The recording is available on [OPPDCommunityConnect.com](https://oppdcommunityconnect.com)

Review IRP and leave comments and questions through Feb. 20 at [OPPDCommunityConnect.com/irp](https://oppdcommunityconnect.com/irp)

Honor Our Community



Last call!

When: March 5

Where: Aksarben Village and a virtual option, you choose when and where to participate

Cost: \$35 – 5k, \$25 – one-mile walk

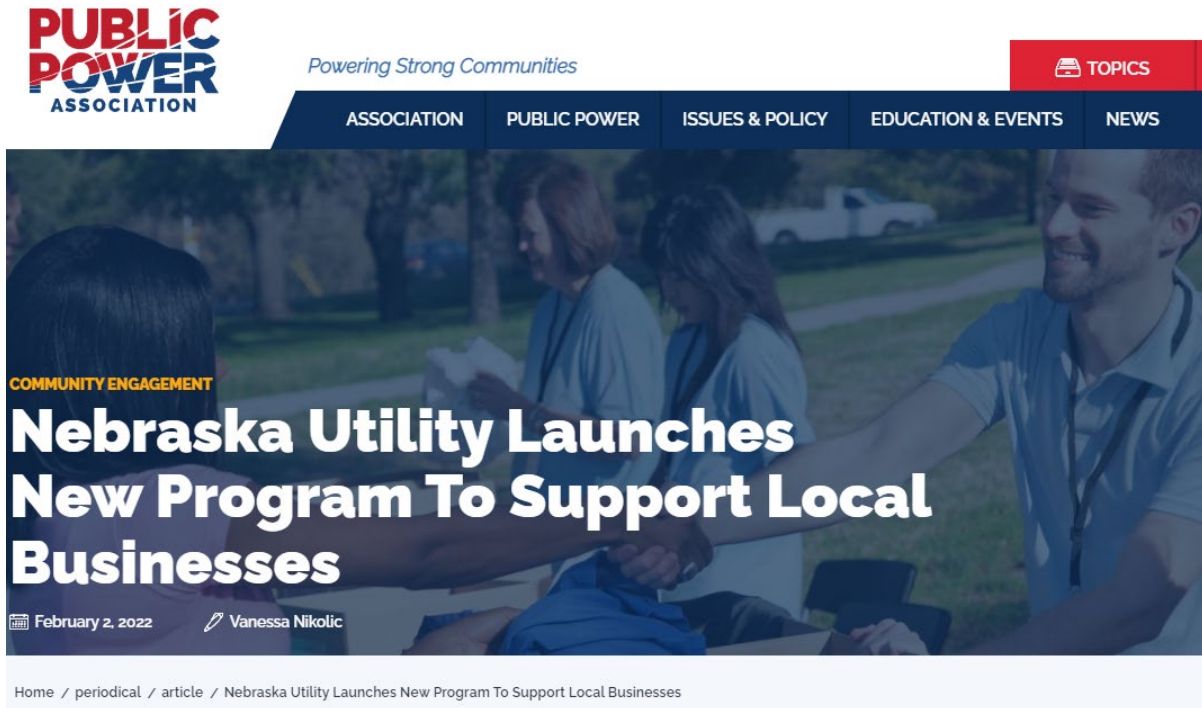
Register:

HeatTheStreetsOmaha.com

Registration ends: March 1



American Public Power Association features OPPD



For more information visit: www.oppd.com/econdev



- Platform offers a variety of tools, data and research to:
 - compare competition
 - identify market characteristics
 - discover ways to optimize efforts to help businesses grow
- Free to utilize across OPPD communities and businesses

In Memoriam

Remembering those we lost

Duane Wilson

Lineman

July 22, 1968

