



2022 NEBRASKA POWER ASSOCIATION LOAD AND CAPABILITY REPORT

July 2022

2022 Nebraska Power Association Load and Capability Report

Executive Summary

In summary, based on Existing and Committed resources, the statewide deficit occurs after 2041 for the Minimum Obligation as shown in Exhibit 1. The statewide deficit for the Minimum Obligation in the 2021 report showed a State deficit occurring in 2039. Exhibit 2 is the corresponding load and capability data in tabular format. The deficit year changes due to “planned” generating units now being “committed”.

The Minimum Obligation, with Planned and Studied resources included, is satisfied in all years as shown in Exhibit 3. The 2041 surplus of 566 MW in this study is actually 247 MW higher than what was shown in the 2021 study; a 2040 end year amount of 319 MW. This is mostly due to decreased load growth.

Introduction

This report is the annual statewide load and capability report prepared by the Nebraska Power Association for the Nebraska Power Review Board, in accordance with subsection (3) of the statute below. It provides the sum of Nebraska’s utilities’ peak demand forecasts and resources over a 20-year period (2022-2041).

State Statute (70-1025) Requirement

70-1025. Power supply plan; contents; filing; annual report.(1) The representative organization shall file with the board a coordinated long-range power supply plan containing the following information:(a) The identification of all electric generation plants operating or authorized for construction within the state that have a rated capacity of at least twenty-five thousand kilowatts;(b) The identification of all transmission lines located or authorized for construction within the state that have a rated capacity of at least two hundred thirty kilovolts; and(c) The identification of all additional planned electric generation and transmission requirements needed to serve estimated power supply demands within the state for a period of twenty years.(2) Beginning in 1986, the representative organization shall file with the board the coordinated long-range power supply plan specified in subsection (1) of this section, and the board shall determine the date on which such report is to be filed, except that such report shall not be required to be filed more often than biennially.(3) An annual load and capability report shall be filed with the board by the representative organization. The report shall include statewide utility load forecasts and the resources available to satisfy the loads over a twenty-year period. The annual load and capability report shall be filed on dates specified by the board. Source Laws 1981, LB 302, § 3; Laws 1986, LB 948, § 1.

Demand and Capacity Expectations

Peak Demand Forecast

The current combined statewide forecast of non-coincident peak demand is derived by summing the demand forecasts for each individual utility. Each utility supplied a peak demand forecast and a load and capability table based on the loads having a 50/50 probability of being higher or lower. Over the twenty-year period of 2022 through 2041, the average annual compounded peak demand growth rate for the State is projected at 0.4% per year (individual utilities range from 0.1%/yr to 1.1%/yr). The escalation rate that was shown in last year's report for 2021 through 2040 was 0.7%. It should be noted that several of the Nebraska utilities have been approached by potential customers regarding the utility's ability to interconnect large, new loads. Many times the nature of the requests are rather vague, with uncertain timing and magnitude. These unverified or speculative large loads are not included in the utilities' demand forecasts.

Planning Reserve Margin Requirement/Reserve Sharing Pool

In addition to satisfying the load requirements of the state's customers, the state utilities must also maintain reserves above their peak demand forecast. The reserve capacity known as a Planning Reserve Margin (PRM) ensures that utilities are able to provide a continuous supply of power in the event of unexpected generator outages. The total resources required to meet peak load under 50/50 (normal weather) conditions and the PRM are known as the Minimum Obligation.

As members of the Southwest Power Pool (SPP), Nebraska utilities participate in a regional reserve sharing pool that increases reliability by sharing the risks of generator outages across a larger system. All SPP Reserve Sharing members must maintain the specified reserve requirement in order to assist each other in the case of emergencies such as unit outages. SPP continually refines and enhances the methodology of its Loss of Load Expectation (LOLE) study to incorporate state-of-the-art approaches, changes in the regional resource mix, and updated weather and fleet reliability data. SPP currently requires a PRM of 12% and is set by detailed LOLE studies conducted every two years.

SPP's recently published 2021 LOLE Study Results indicate a need to increase SPP's PRM for the upcoming 2023 summer season. The base case results of this study indicate a need for a 12.8% PRM, while several sensitivities indicate a need for higher PRM requirements based on alternative methodologies. In June 2022, SPP's Supply Adequacy Working Group (SAWG) voted to approve a recommendation to increase the PRM from 12% to 13% in 2023, 14% in 2024, and 15% in 2025. This recommendation will be elevated to and voted on by SPP member committees for adoption by SPP. The 2022 NPA L&C Report utilizes the SPP PRM of 12% for the 20-year period; however, if a 15% PRM was utilized in Exhibit 1 on page 21, the Nebraska Reserve Margin would still be in excess of the SPP requirements until year 2041.

SPP's resource adequacy staff and SAWG are also in the process of considering further enhancements to the LOLE study process and resource adequacy requirements to address lessons learned from the 2021 Winter Storm Uri events. These topics include the

potential establishment of a separate winter reserve margin requirement and accreditation requirements for fuel assurance.

The capacity required to meet SPP's current 12% RPM is significantly higher than the Nebraska load requirement. This amount of capacity equates to 746 MW in 2022 and 817 MW by 2041.

Resources

Existing/Committed

The State has an "Existing" in-service summer creditable generating resource capability of 7,701 MW. This is up from 7,673 MW shown in the previous 2021 report. The changes were mostly increases in wind accreditation. There are 675 MW of "Committed" nameplate or 649 MW accredited resources included in this report (the projects have Nebraska Power Review Board approval if required – PURPA qualifying and non-utility renewable projects do not need NPRB approval).

There are several additional committed projects currently in development within Nebraska:

- The 1.0 MW Norfolk Battery Energy Storage System will soon be on-line.
- The OPPD 1.0 MW BRIGHT Battery system is expected to be completed in 2023
- Addition of 19.7 MW of renewable, Behind-The-Meter renewable generation is forecasted to be added between 2022 and 2023.
- Construction of OPPD's new dual fuel generation, the 150 MW Standing Bear Lake facility and the 442 MW Turtle Creek facility, are expected to be completed in 2024. These resources are part of the 2020 SPP Generation Interconnection (GI) Queue Cluster Study which is currently delayed for completion until 2024 and may identify new regional transmission expansion requirements be built prior to operation.
- Construction of OPPD's 81 MW (55.5 MW accredited) Platteview solar project is expected to be completed to meet Summer 2024 accreditation. This resource is part of the 2020 SPP Generation Interconnection (GI) Queue Cluster Study which is currently delayed for completion until 2024 and may identify new regional transmission expansion requirements be built prior to operation.

Planned

“Planned” resources are units that utilities have authorized expenditures for engineering analysis, an architect/engineer, or permitting, but do not have NPRB approval - if that approval is required, or do not have a contractual commitment.

There is additional planned generation for development within Nebraska:

- OPPD is planning an additional 519 MW of nameplate (356 MW accredited) photovoltaic solar as part of its Power with Purpose project.

Studied

Resources identified as “Studied” for this report provide a perspective of future resource requirements beyond existing, committed and planned resources. For any future years when existing, committed, and planned resources would not meet a utility’s Minimum Obligation, each utility establishes studied resources in a quantity to meet this deficit gap. These Studied resources are identified based on renewable, base load, intermediate, peaking, and unspecified resources considering current and future needs. The result is a listing of the preferable mix of renewable, base load, intermediate, peaking and unspecified resources for each year. The summation of studied resources will provide the basis for the NPRB and the state’s utilities to understand the forecasted future need by year and by resource type. This can be used as a joint planning document and a tool for coordinated, long-range power supply planning.

There are 60 MW of “Studied” resources that include 0 MW of nameplate renewable resources, 0 MW of base load capacity, 0 MW of intermediate capacity, 0 MW of peaking resources and 60 MW of unspecified capacity starting with 50 MW in 2024, building to 60 MW in 2039.

Committed/Planned/Studied Exhibits

Exhibit 3 shows the statewide load and capability chart considering 7,701 MW of Existing, 675 MW of Committed (nameplate) (649 MW accredited), 520 MW Planned (nameplate or 356 MW accredited), and 60 MW of Studied resources. Some existing wind renewables are currently shown at “zero” accredited capability due to the small accreditation values allowable under SPP’s Criteria (explained in next section). Exhibit 4 is the corresponding load and capability table. As intended, these exhibits show how the Minimum Obligation can be met with the addition of the studied resources.

The Committed, Planned, and Studied nameplate capability resources are summarized in Exhibit 5, (which includes BTM). Exhibit 6 summarizes the Existing, Committed, Planned, and Studied renewable resources and also includes BTM resources in the tabulation.

Winter Loads and Winter Generating Capability Data

Exhibit 1 “Winter” along with Exhibit 2 “Winter” give a snapshot of the existing and committed winter load and capability. Like the summer, there is sufficient generating capacity well past 2041. The 2022/33 winter reserve margin is 41.4% compared to the 2022 summer value of 23.2%. The 2041/42 winter reserve margin is 23.2% compared to 15.0% in the summer. The winter load and capability calculations include reduced demand from each utility’s summer peak values, reduced WAPA allocations, as well as some gas fired units are off-line due to not having firm winter natural gas contracts, and winter solar accreditation is also lower.

100 out of 201 statewide existing generating units as shown in Exhibit 7 “Winter” are considered dual fuel units which is 49.8% of the units. This amounts to 1484.23 MW out of 7146 MW or 20.8%. Many of the dual fuel generating units are very small and are internal combustion or reciprocating units.

163 out of 201 statewide existing generating units as shown in in Exhibit 7 “Winter” have on site storage which is 81.1% of the units. This amounts to 5550.5 MW out of 7146 MW or 77.7% have on site storage.

Non-Utility Resources

Non-utility wind purchases have continued and are summarized as follows. This information is gathered from publicly available industry publications and newspapers and may not be complete. These projects also do not represent retail choice, as they are not directly attributed to serving retail customers within the state. The 318 MW (nameplate rated) Rattlesnake Creek wind facility began commercial operation in December 2018 and energy from this facility is purchased by Facebook and Adobe Systems. Facebook is procuring energy from Rattlesnake Creek for their data facility in Sarpy County. The WEC Energy Group (an electric generation and distribution and natural gas delivery holding company), based in Milwaukee, Wisconsin, signed a Purchase and Sale Agreement for 80% of the Upstream Wind Energy Center (202.5 MW nameplate) located just north of the City of Neligh. Invenergy, the developer, has retained a 20% interest in the project which went commercial in the first part of 2019. Both the J.M. Smucker Company and Vail Resorts have Power Purchase Agreements in place to purchase energy from the 230 MW (nameplate) Plum Creek Wind Project in Wayne County which went commercial in July 2020. Smucker’s purchase is for 60 MW while Vail Resorts will purchase 310,000 MWh annually for 12 years. A Milligan 1 300 MW wind farm built in Saline County, by EDF Renewables did go commercial in May 2021. The announcement said it would sell its generated energy into the Southwest Power Pool. Hormel Foods has announced a Power Purchase Agreement for wind energy from a new wind farm near Milligan (Milligan 3), located in Saline County 60 miles southwest of Lincoln which now has a projected completion date of December 2022. The wind farm has a planned capability of 73.4 MW (nameplate) of power. The 300 MW Thunderhead Energy Center that was announced to be built in Antelope and Wheeler counties with a completion date

of the end of 2020 but is not commercial. It is currently undergoing an environmental assessment due to its request to connect to Western Area Power Administration (WAPA). This wind facility was to be built by Invenergy with AT&T reportedly taking all of the energy from it. NextEra's 250 MW Little Blue Wind Project located in Webster and Franklin Counties became commercial in December 2021. No information on off-takers is available. The 300 MW Haystack Wind Farm built by Oersted in Wayne County (5 MW wind turbines) was completed in 2021. Hormel, Target, and PepsiCo are the off-takers.

SPP Effective Load Carrying Capability (ELCC)

SPP's Supply Adequacy Working Group is currently pursuing implementation of an Effective Load Carrying Capability (ELCC) method of determining wind, solar and storage accreditation which would replace the currently used criteria. The method is scheduled to go into effect for the summer of 2023. The ELCC is a probabilistic based accreditation reflecting an intermittent resource's ability to reliably serve load. The existing accreditation method produces a resulting accreditation which is independent of overall penetration of that type of resource in the SPP footprint. Contrarily, the ELCC is affected by overall penetration level of the resource in a footprint, and the general principle is that as overall penetration grows, the accreditation benefit on a percent of nameplate is reduced. During the years before 2023, SPP has provided "information only" ELCC accreditation levels to provide SPP members/stakeholders with an indication of the magnitude of percentage accreditation in anticipation of actual implementation for the summer of 2023. Even as accredited capacity ratings decline, wind and solar generation renewable resources are desirable for being emission-free and having a zero-fuel cost. Nebraska utilities are adding renewables to take advantage of these attributes.

In order to preserve an additional amount of certainty in the accreditation benefit which Load Responsible Entities (LRE) expect to receive from wind and solar resources, the SPP ELCC methodology allows for a priority tier under the ELCC study. The tier is based on the nameplate of the wind or solar portfolio as a percent of a LRE's recent historical peak load. The tier is 35% for wind and 20% for solar resources that have firm transmission service. This means as LREs across SPP continue to add wind and solar, they know their renewable accreditation for resources within these percentages will be diminished only up to a point. As an individual LRE may choose to add renewables beyond 35 and 20 percent, then those renewables will be included in a larger ELCC renewable tier and be subject to further diminishing ELCC accreditation on renewables. The SAWG is also implementing ELCC accreditation for storage resources which also receive diminished accreditation as the penetration of storage increases.

In 2022, the electric utilities in Nebraska currently have 2101 MW of nameplate wind installed. This does not include Behind-The-Meter wind resources. Under current SPP procedures this wind is accredited at 434 MW, which is roughly 21% of the total nameplate value. In the summer of 2023 when the ELCC accreditation method goes into effect the new accreditation amount could fall to around 357 MW or around 17% of the original nameplate value. This 17% proxy value was taken from a 2020 "information only" SPP

ELCC study focusing on wind accreditation. Later this year SPP will let each utility know the 2023 accredited value of their wind facilities using the ELCC method.

Nebraska Utility Decarbonization Goals

Most power utilities across the nation are embracing decarbonization and are evaluating their specific goals or have plans in place to move forward to meet these goals 20 to 30 years in the future. Each utility is unique in their approach as they must balance lowering their carbon footprint along with taking into account customer expectations without losing sight of maintaining stable rates, maintaining reliability, adhering to their specific market (SPP) rules, along with monitoring technology advancement. Technology is continuously evolving, and the best solutions will continue to emerge. Each plan represents a directional path that will continue to adapt with evolving conditions.

The following are the current decarbonization goals for the utilities that have established goals. These goals will be under continual evaluation:

NPPD

In 2021, NPPD's Board of Directors established a strategic directive (SD-05) to achieve net-zero carbon emissions from generation resources by 2050. This will be achieved by continuing the use of proven, reliable generation until alternative, reliable sources of generation are developed and by using certified offsets, energy efficiency projects, lower or zero carbon emission generation resources, beneficial electrification projects, or other economic and practical technologies that help NPPD meet the adopted goal at costs that are equal to, or lower than, then current resources.

In addition, NPPD is presently updating their Integrated Resource Plan (IRP), which is due for completion in 2023. The IRP will incorporate SD-05 and will provide directionally correct insight to the most favorable approach to adding resources and reducing carbon emissions. Specific resource decisions will likely require additional analysis. At this time NPPD has no plans to retire or decommission any of its existing generation units.

OPPD

In 2019 OPPD's Board of Directors adopted a goal in its Strategic Directives of achieving net-zero carbon production by 2050 while balancing affordability and reliability. As part of developing plans to meet this goal, OPPD conducted its Pathways to Decarbonization study in 2021. The study focused on identifying potential future resource changes while maintaining reliability and minimizing costs. OPPD incorporated the information resulting from its Pathways to Decarbonization study into its 2021 Integrated Resource Plan.

OPPD recognizes that a foundation of reliability and resiliency is essential for decarbonization. OPPD's Pathways to Decarbonization study included detailed, quantitative, and objective resource adequacy modeling through Loss of Load Expectation modeling. This modeling was essential in defining acceptable results from the study and in identifying how a mix of diverse resources can effectively work together

to support a reliable system. The study found that firm dispatchable generation plays an essential role in supporting the system during low renewable periods and extreme conditions.

The study identified reduced coal generation and a mix of low-carbon natural gas generation (or dispatchable resources), renewable energy, energy storage, and community-wide energy efficiency as key elements of its strategy. The OPPD Pathways to Decarbonization Study results highlight a minimum incremental investment in 1,100 MW of solar, 500 MW of wind, and 150 MW of energy storage resources by 2030 growing to 3,000 MW of solar, 3,800 MW of wind, and 800 MW of energy storage resources by 2050. These are in addition to OPPD's current PWP solar additions and are considered "no regret," as they are selected to be built across all load and pace of decarbonization scenarios. While resources required by 2030 are more certain than those required by 2050, OPPD will need to continue to monitor the environment and regularly update its plans to reflect current and emerging technologies.

The Pathways to Decarbonization Study was a macro-level analysis of OPPD's service territory and the SPP system. In 2022, OPPD will begin its Advanced Feasibility Studies to continue to develop more specific and detailed plans on its transition while also ensuring resource and energy adequacy.

MEAN

In January 2020, the MEAN Board of Directors approved a resolution establishing MEAN's 2050 Vision, with a goal of achieving a carbon neutral resource portfolio by the year 2050. MEAN's 2022 Integrated Resource Plan will form the initial direction for future actions and resource decisions to realize the 2050 Vision. Following the IRP's direction, MEAN staff will work in collaboration with Participants to construct policies around resource planning, portfolio optimization, and emissions reduction to achieve the 2050 carbon neutral goal.

MEAN's IRP analysis and modeling favored a plan that would meet future MEAN capacity and energy needs by incorporating additional renewable resources into the portfolio. Renewable resource portfolios offered comparatively low costs in several scenarios as well as the potential to create local benefits for MEAN communities. The Board recommended portfolios for future resource needs as identified in the IRP include natural gas combined cycle with carbon capture, landfill gas, hydropower, wind with energy storage, and solar with energy storage.

Portfolio diversification remains a very high priority for MEAN to balance the need for reliability with the desire for decarbonization.

LES

After participating in a yearlong educational series on establishing a new carbon reduction goal and soliciting public opinion, the LES Administrative Board in November 2020 adopted a goal that LES believes to be one of the more aggressive decarbonization goals

in the United States. This new goal will aim to achieve net-zero carbon dioxide production from LES' generation portfolio by 2040.

LES plans to pursue the goal with the same approach it's used over the last decade; watching for opportunities to improve its generation portfolio while also reducing carbon emissions. This approach has yielded solid results to date, as from 2010 – 2021 LES has reduced its carbon dioxide emissions by 41%. On a nameplate basis, approximately one-third of LES' resources are currently fueled by coal, one-third fueled from natural gas, and one-third are renewables (primarily wind and hydro).

LES is developing a new Integrated Resource Plan (IRP) in 2022, a blueprint developed every five years to help forecast when power resources will be needed, what the optimal resource mix may look like and how LES will bring it together to best serve its customers in the future. Although there are too many unknowns between now and 2040 for this IRP to develop a full plan and detailed timeline for achieving the goal, LES does expect this process to identify some of the primary building blocks.

Hastings Utilities

Hastings Utilities does not have decarbonization goals at this time. Hastings plans to continue to monitor the energy market and all of its resources available.

City of Grand Island Utilities

Grand Island Utilities recently hired a consultant to study various generation replacement options for Platte Generating Station (PGS) in conjunction with work being done in the WAPA IRP process. Retirement of PGS is being considered within the next eight to ten years due to the age of the unit and the variable nature of the market it operates in. Options that are being considered are natural gas fired reciprocating engines with back up diesel supply as well as various sizes of a utility grade solar facility. Finalization of those plans are anticipated within the next year or two.

City of Fremont Utilities

At this point, Fremont has no plans on retiring/decommissioning any of its coal or natural gas units and is potentially looking at scaling down generation on those units in the future. Unfortunately, there is nothing more at this point due to too many unknowns.

Renewable and Demand Side Resources

The State has 2,198 MW of commercially operating renewable nameplate resources for the peak of 2021, of which 77 MW are behind the utility meter (not net metered) as shown in Exhibit 6. There is also 114 MW of in-state hydro for Nebraska's use not included in this total. These amounts do not include any wind which may be installed by developers in Nebraska for export to load outside the state. Wind with its intermittency is relied upon by Nebraska utilities for only a small percentage of its full nameplate rating to meet peak load conditions. Correspondingly, for wind and solar the SPP has criteria to determine this specific creditable capacity percentage. The criteria are based on actual

performance of solar and wind facilities and how successfully they produce energy during actual utility peak load hours. The rating is determined by following SPP's criteria to calculate the accredited rating for the facility. The accredited rating based on actual performance generally requires a minimum of 3 years' history. SPP criteria allows for a 5% accreditation rating for new wind installations with less than 3 years history and 10% for solar.

Demand side resources are loads that can be reduced, shifted, turned-off or taken off the grid with the goal of lowering the overall load utilities have to serve. Ideally this load is best reduced to correspond to utilities' peak load hours. The advantage for utilities is the demand reduction will reduce the need for adding accredited generation in current or future years.

Exhibit 6.1 shows the Statewide Renewable Generation by Nameplate. Exhibit 7.1 shows the Statewide Renewable and Greenhouse Gas Mitigating Resources.

Included below are summaries of the utilities in regard to their renewable and/or sustainable goals and demand side programs.

NPPD

NPPD owns or has agreements with these non-carbon resources:

- 558 MW of hydroelectric generation, including the Western Area Power Administration agreement.
- 770 MW of nuclear power at Cooper Nuclear Station.
- 320 MW of nameplate wind (NPPD's share).

For 2021, non-carbon generation resources were approximately 63% of NPPD's Native Load Energy Sales from the resources discussed above. Most of the non-carbon generation is due to nuclear.

NPPD and Monolith Materials, Inc. executed a Letter of Intent ("the LOI") outlining the interest of the parties to supply Renewable Energy Credits ("REC") for Monolith's facilities. Pursuant to the LOI, the District solicited bids from renewable energy developers in 2021. The LOI contemplates that the District would enter into power purchase agreements with the renewable energy resource developers and for the District and Monolith to enter into agreements that would provide the methodology for reimbursement of the District's cost of purchasing such energy and REC. Due to numerous uncertainties including potential federal legislation, supply chain issues, regulatory approvals and other factors, the District and Monolith continue to evaluate the process for the purchase of renewable energy and REC.

NPPD's Demand Side Management program consists of Demand Response and Energy Efficiency. NPPD presently has a successful demand response program, called the Demand Waiver Program, to reduce summer billable peaks. The majority of savings in

this program are due to irrigation load control by various wholesale customers, which accounted for approximately 600 MW of demand reduction from NPPD's billable peak during the summer of 2021. Another 2 MW of demand reduction was realized from other sources.

NPPD implemented an interruptible rate, Special Power Product #8, allowing qualified large end-use customers (served by wholesale or retail) to curtail demand during NPPD specified periods. NPPD is anticipating more customers to take advantage of this rate in the future.

NPPD has a series of energy efficiency and demand-side management initiatives under the EnergyWiseSM name. Annually, these programs have sought to achieve a first-year savings of more than 12,000 MWh and demand reductions greater than 2 MW. Accumulated first year energy savings through 2021 are 376,323 MWh and demand reductions are 61 MW.

OPPD

OPPD values a diverse resource mix as a means of achieving its mission of providing affordable, reliable, and environmentally sensitive energy services to its customers. At the close of 2021, OPPD met 35.4% of retail customer electrical energy sales with wind energy, energy from landfill gas, hydro energy, and solar energy. OPPD's renewable portfolio at 2021 year-end consisted of 971.7 MW of wind by nameplate, 5 MW of nameplate solar, 6.3 MW of landfill gas generation as well as purchased hydro power.

OPPD announced a new 81 MW (nameplate) utility scale solar facility in Saunders County south of Yutan. Platteview Solar will consist of an approximately 500-acre facility and is targeted for accredited operation in 2024. This is the first step toward OPPD's Power with Purpose intended goal of 600 MW of utility scale solar power.

OPPD has received Power Review Board approval of and is in the process of sourcing its first utility-scale battery storage facility. This resource will be utilized as a generation and transmission asset providing energy arbitrage, voltage support and various other functions, with a power rating of 1 MW and a storage capacity of 2 MWh. The project will be partially funded through the BRIGHT grant from the Nebraska Environmental Trust and is planned to be operational in late 2022.

OPPD's demand side resource programs can achieve over 127.5 MW of peak load reduction ability as of the summer of 2022. Existing programs consist of a customer air conditioner management program, thermostat control, lighting incentive programs, and various innovative energy efficiency projects. Additionally, OPPD can reduce its demand with assistance from a number of large customers who utilize OPPD's curtailable rate options. During summer peak days, any demand reductions from these customers are coordinated with OPPD in advance of the peak afternoon hours.

Demand side resource programs have enjoyed the support of OPPD stakeholders. OPPD will continue to grow its demand side programs in the next 10 years. Essential benefits of this increase in demand side programs include helping OPPD to maintain its SPP reserve requirements. To grow its demand side resource portfolio, OPPD will increase existing programs and promote additional programs. An expansion to the Smart Thermostat Program was launched in May of 2021 which includes the addition of 3 more thermostat choices for residential customers. OPPD will build its demand side resource portfolio in manners which are cost effective and take into account customer expectations.

OPPD makes available a net-metering rate to all consumers that have a qualified generator. The qualified generator must be interconnected behind the consumer's service meter located on their premises and may consist of one or more sources as long as the aggregate nameplate capacity of all generators is 100 kW or less AC nameplate capacity. The qualified generator must use as its energy source methane, wind, solar, biomass, hydropower or geothermal.

MEAN

In serving the needs of its total membership, MEAN's system-wide resource portfolio includes 49% non-carbon resources on the basis of nameplate capacity, consisting of 31% WAPA hydro allocations, 14% renewables (wind, small hydro, and landfill gas), and 4% nuclear. Portfolio diversification remains a high priority for MEAN to balance the need for reliability with the desire for decarbonization.

As a member driven and member owned utility, MEAN procures renewable energy assets at the direction of its owners. Currently, MEAN maintains a wind pool and a landfill gas pool, which allow member communities to subscribe for purchase of a requested amount of wind energy or landfill gas environmental attributes on an annual basis. This allows each community to tailor its resource portfolio to meet its specific demands and obligations as individual municipal utilities have renewable goals that can range from 0% to 100% of energy requirements. MEAN annually surveys its owners to determine individual goals for renewable energy requirements. When there are significant changes in demand for renewable energy, the MEAN Board considers the approval of new renewable purchases. MEAN's wind pool is currently fully subscribed, and the Board is considering power purchase agreements for additional carbon free energy.

In 2019, MEAN surveyed member communities regarding interest in installation of community-owned solar assets. On behalf of these communities, MEAN released a Request for Proposals for community-owned solar facilities. The interested communities were required to supply a controlled site adequate for the project size and would contract directly with the solar developer. MEAN would administer and negotiate the contract and assist members in sizing and specifications of the installation. The aggregated Request for Proposals was pursued as the increased volume of solar installation required of the combined projects provided advantageous pricing compared to a standalone project in one community. The RFP was released in July 2021 and bids received in September 2021. After evaluation of bids and consultation with members, MEAN awarded the bid

for a total of 14.2 MW-DC of community-sited and -owned solar facilities. Since that time, additional communities have joined the project, and the total installed capacity has increased to 27.4 MW-DC. Project installation is scheduled to begin in Fall of 2022 with all commercial operation dates by Fall of 2023.

MEAN previously established a committee to focus on the integration of renewable resources within member communities. The increasing presence of renewable distributed generation offers unique opportunities that can benefit both MEAN and local residents. In 2017 and again in 2019, MEAN revised its Renewable Distributed Generation policy to increase the size of allowable community owned and locally-sited renewable energy resources. Should Participant communities desire a larger allowance for community-owned renewables, the Board can take up the issue for an increase in this limitation. MEAN communities have also expressed interest in the installation of alternate distributed generation technologies, such as fuel cells, cogeneration facilities, and energy storage. Under evolving policy, projects may be incorporated into MEAN's load and resource balance into the future and would ultimately decrease the need for other resources.

MEAN has identified the investigation of new MEAN-contracted generation opportunities located in Participant communities as a goal in MEAN's Strategic Plan and also as a portfolio preference in the IRP. MEAN initiated discussion on this concept with the Membership as it relates to potential solar facilities, and policy is being developed in 2022. As communities are installing generation under the Renewable Distribution Generation Policy, there is potential to concurrently install Distributed Generation directly owned or contracted to MEAN, provided participating communities have sufficient space available for lease to MEAN and the facilities are sized below the threshold that would require an interconnection study. This concept has numerous benefits: renewable resources generating directly on member distribution systems, lower interconnection costs, incremental sizing for resource portfolio changes, potential savings on property leases, public appeal, and grid modernization with distributed generation and micro-grid systems. This policy is scheduled to be developed and presented to the Power Supply Committee and Board of Directors for recommendation and approval by the end of the calendar year.

MEAN has utilized a variety of demand side management tools to help reduce load and energy requirements. MEAN presently administers an ENERGYsmart commercial LED lighting program, which includes cash incentives paid directly to commercial customers to help cover the cost of lighting upgrades and replacements. This program is available to commercial businesses of MEAN long-term power participants. In 2019, MEAN initiated additional energy efficiency incentives offered to residential end-use customers of its Participants. These new programs include rebates for programmable thermostats, residential insulation, and HVAC tune-ups. In May of 2021, the Board again approved an expansion of this program to include a residential heat pump program. MEAN staff continues to evaluate the benefits of additional energy efficiency and demand side management options to decrease demand-related costs for MEAN and its participants. Discussions are planned with the Board and Committees regarding an incentive program for residential vehicle chargers.

LES

LES' Sustainable Energy Program (SEP) offers customers and contractors incentives for energy-efficient installations and upgrades at their home or business. First adopted in 2009, the SEP now offsets the energy use of about 15,000 average Lincoln homes.

Under the Peak Rewards program, LES leverages residential customers' own smart thermostats to pre-cool spaces prior to the initiation of an LES-controlled demand response event, allowing for a reduction in summer peak demand while still maintaining residential comfort. LES introduced a new demand response pilot program under the umbrella of Peak Rewards in 2021, incentivizing plug-in electric vehicle owners to also avoid charging during peak load periods.

LES has two programs that support customers wishing to pursue their own renewable generation. Under LES' net-metering rate rider, customers can install a 25-kW or smaller renewable generator to serve their homes or small businesses. LES also has a renewable generation rate for customers interested in generating and selling all output to the utility rather than serving a home or small business. Systems greater than 25 kW up to 100 kW will qualify for this rate. Customers under each rate receive a one-time capacity payment based on the value of the avoided generating capacity on system peak. The energy payment amount for new installations is based on LES' existing retail rates and is scheduled to be reduced as predetermined, total service area renewable-installation thresholds are met over time.

In August 2014, LES launched the SunShares program, allowing customers to voluntarily support a local community solar project through their monthly bill. This program led to LES contracting for a local, approximately 5-MW_{DC}/4-MW_{AC} solar facility, which began commercial operation in June 2016. The facility represents the first utility-scale solar project in Nebraska and is still one of the largest projects in the region.

The community solar project also supports LES' virtual net metering program. As part of this program, customers receive a credit on their monthly bill based on their level of enrollment and the actual output of the facility. Enrollment began in December 2016, with the first credits appearing on bills in January 2017. The enrollment fee was originally a one-time, upfront payment, but in 2019 LES also added the option for customers to pay the associated fee over 36 months via their normal LES bill. The program will run for nearly 20 years, coinciding with the life of the solar project contract.

Hastings Utilities

Hastings Utilities has no formal renewable energy goals but will monitor the economics and interest of renewable energy. Hastings Utilities will work with customers who are interested in pursuing renewable energy to find mutual benefit for a successful project. Hastings Utilities worked with its customer, Central Community College, to implement a 1.7 MW wind turbine on the Hastings CCC campus.

Hastings Utilities has completed the construction of a 1.5 MW Community Solar Project to respond to customer requests for renewable energy. Customers can participate by purchase of solar panels or solar shares. The project was completed in September of 2019. Hastings has studied expanding the community solar farm and plans to expand when customer demand arises.

City of Grand Island Utilities

Grand Island does not have any formal renewable/sustainable goals. The Grand Island City Council has directed the Utilities Department to explore opportunities as they develop. Due to continued delays with the SPP interconnection study queue as well as delays with the NPPD R-Project, American Electric Power (AEP) decided to cancel its plans for the Prairie Hills Wind Farm. GIUD had signed a Power Purchase Agreement in 2017 for 50 MW from this farm. GIUD went to the Grand Island City Council with a termination of this agreement in April 2022. Grand Island currently participates in five wind farms with an approximate total amount of 31 MW (nameplate).

Grand Island Utilities approved its first small scale residential solar installation in 2015. Changes were made to City Code to accommodate demand side resources with an expectation that more resources will follow. Since then, several smaller scale residential solar generators have been installed. Additional changes to City Code have been made to allow larger renewable generation facilities between 25 KW and 100 KW. One facility in this category is currently installed and operating.

In 2017, Grand Island Utilities signed a Power Purchase Agreement for a 1 MW behind the meter solar installation with Sol Systems. This facility went into service in 2018.

City of Fremont Utilities

Fremont currently operates two solar arrays, which offers residents two options on the project. Electric customers can either purchase their own solar panels or purchase solar shares from the Community Solar Farm. Eighty-four percent (84%), which can vary month to month, of the panels are either owned or purchased shares by the rate payers of Fremont. Solar array #1 is 1.32 MW and solar array #2 is 0.99 MW. Both have been in operation since 2018. In 2017 Fremont signed a Purchase Power Agreement with NextEra for 40.89 MW of wind energy from the Cottonwood Wind Farm in Webster County, NE. Fremont will continue to evaluate the needs for renewable energy.

SPP Generator Interconnection Queue

The SPP Generator Interconnection (GI) Queue process provides a means for planners and developers to submit new generation interconnection projects to SPP for validation, study, analysis and, ultimately, execution of a Generator Interconnection Agreement. This agreement is required for new generation to be able to connect to the regional transmission system and to be accredited to satisfy SPP PRM requirements. Potential

transmission system upgrades required to support the new resources are identified during this process and the costs are allocated to those facilities causing the upgrades.

The continued declining costs of renewable generation technologies has led to a large influx of generation interconnection requests into the SPP GI study process in recent years. This growth in the volume of study requests, coupled with how they must be equally treated according to federal Open Access Transmission Tariff (OATT) requirements, has led to a significant backlog in the study process and has caused increased delays in this process. The current delay in this study process is approximately 4 to 5 years to complete the study from the time when the request was submitted depending on the specific study cluster. This is a national issue with RTOs, FERC, utilities, and industry groups working diligently to improve these processes to allow modern resources to connect to the transmission system and serve load in faster, more predictable timeframes.

A listing of the projects in the Queue from June 3 of this year for Nebraska shows around 1,475 nameplate megawatts for battery storage, 6,626 MW of solar, 3,965 MW of wind (almost half that of the 2021 report) and 845 MW that is considered hybrid. For reference, there is at this time approximately 3,216 MW of nameplate wind installed in the State. Also listed are conventional combustion turbine and diesel generation amounting to 3,571 MW (no change from 2021 report). Based on past history, many or most of these proposed projects listed in the SPP Queue will not get built, but due to FERC policy requiring non-discriminatory and open access to the transmission grid, each request must be equally treated and evaluated.

Distributed Generation

Distributed generation is providing wholesale and retail power suppliers numerous new opportunities to interface with customers. Power purchase agreements with smaller wind developers are available to retail power suppliers in the magnitude of 1.5 to 10 MW. This is occurring due to agreements between the wholesale power suppliers and the retail power suppliers. These agreements allow for a portion of the retail power supplier's energy requirements to come from private renewable energy developers that are located behind the wholesale power supplier's meter.

Next, with the decline in the cost of solar installations, the continuation of tax benefits and net metering rates, retail customers are installing small scale solar arrays. As these installations prove more cost effective and with the development of small energy storage more of these installations are being constructed. These installations are being installed in both rural and residential applications. Also, larger solar array installations that are not eligible for net metering rates are being considered and installed. Many of these arrays are community solar projects. Lincoln Electric System contracted with a developer to install a 5 MW_{DC} (4 MW_{AC}) array where individuals can purchase shares. NPPD has retail communities with operating community solar facilities ranging in size from 100 kW to 8.5 MW. OPPD has a community solar facility sized at 5 MW. OPPD's customers

have already subscribed to the full production of this facility. Therefore, more private involvement with local utilities is providing additional opportunities to increase the utilization of renewable energy.

In addition, an NPPD retail community will soon couple a 1 MW / 2 MWh Battery Energy Storage System (BESS) to a community solar project. The BESS will be charged through generation provided by the solar unit and discharged to accomplish several goals, such as demand management, voltage support, and smoothing and shifting variable renewable energy generation. The BESS unit will store approximately the amount of electricity that a small home would use over the course of two months.

Exhibit 6 lists all of the Nebraska renewable resources, with two columns identifying whether the resource is “Behind the Meter – Utility” or “Behind the Meter – Non-Utility”. Behind the Meter – Utility resources are those who have a signed Power Purchase contract or are owned by the utility.

Resource Life Considerations

The Nuclear Regulatory Commission (NRC) determined in August 2014 that a new rule making was not required and confirmed that existing license renewals, where granted, provided a robust framework for second license renewals beyond the initial 20-year renewal term. In addition, no changes are needed to environmental regulations to allow for future license renewal activities.

Cooper Nuclear Station’s (CNS) operating license is set to expire January 18, 2034. Although NPPD has not fully studied a second operating license renewal, for purposes of this report, it is assumed CNS will continue to operate through the end of the study period.

NPPD’s listed North Platte and Columbus hydro facilities operate under a Federal Energy Regulatory Commission license. The North Platte facility is presently operating under a 40-year license, with the license requiring renewal in 2038. The Columbus Hydro facility received a new 30-year operating license, with the license requiring renewal in 2047. Given the focus on carbon free generation resources, NPPD and Loup are assuming these facilities will continue to be maintained and licensed and will remain an essential part of NPPD’s generation mix for an extended period of time.

In June of 2022, OPPD staff recommended extension of its North Omaha Station in its current state until at least 2026. OPPD has previously planned on converting units 4 and 5 from coal to natural gas and retiring units 1, 2, and 3 at the end of 2023. The recommended continued operation of these facilities would mitigate risks associated with the delayed SPP GI study process for OPPD’s new Turtle Creek and Standing Bear Lake stations. OPPD seeks to have certainty on its ability to interconnect and generate from these two new dual fuel facilities prior to converting North Omaha Station, which demonstrates OPPD’s commitment to ensuring reliability and resiliency for its system This recommendation is expected to be voted on in its August Board of Directors meeting.

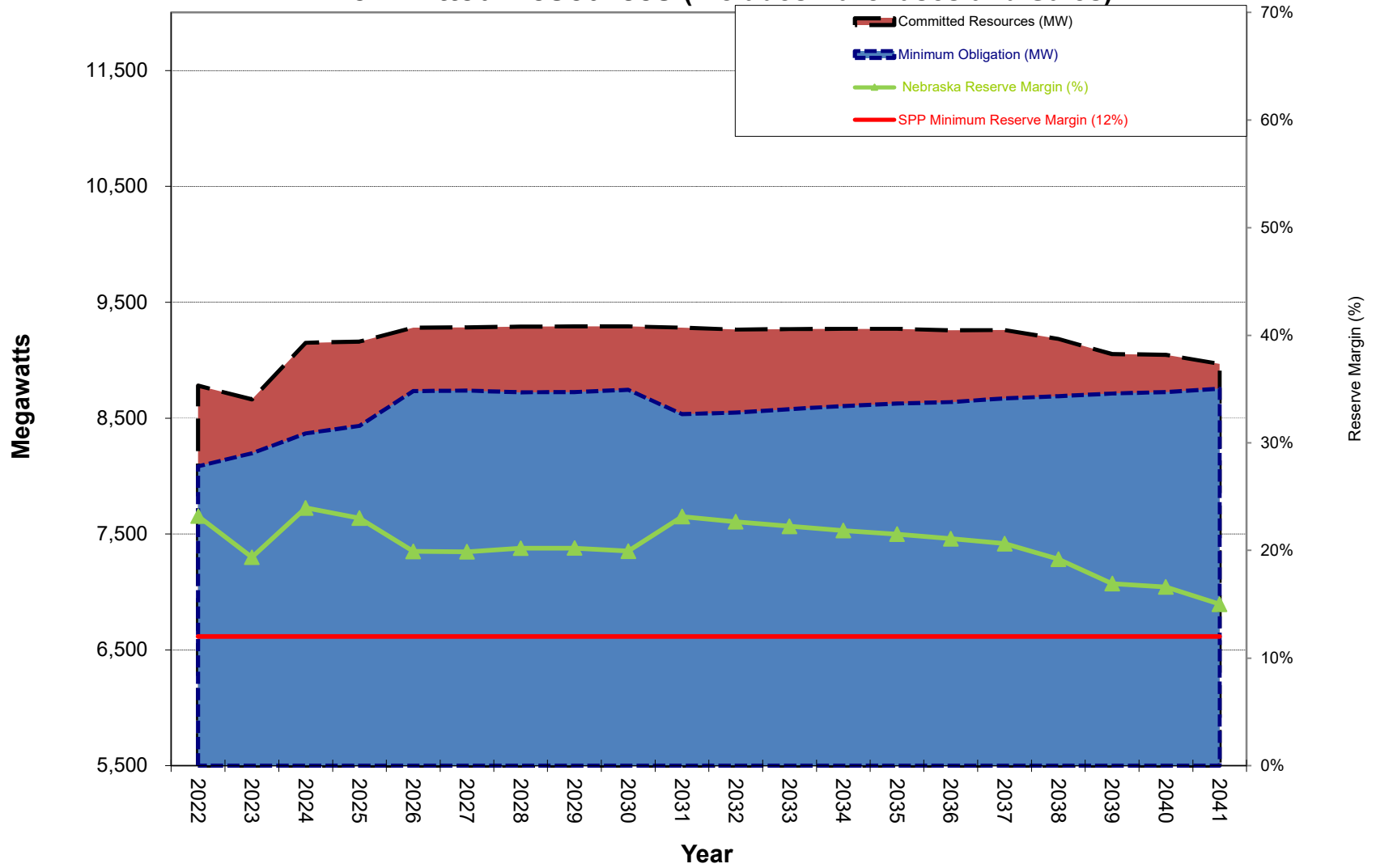
The wind farms included in this report are shown at the life listed in the various power purchase agreements (PPA), usually 20 or 25 years. Most agreements have an option for life extension. Utilities will decide whether to exercise those options when the PPAs near their end. In order for those utilities to maintain their renewable and/or carbon reduction goals these utilities will have to either exercise those options or develop other renewable resources.

Nebraska's existing generator capability resources are listed by unit in Exhibit 7. Nebraska has 7,701 MW of existing resources. 1,262 MW or 16% of that total are greater than 50 years old today. Another 3,602 MW or 47% are 41 to 50 years old today. Most of these units have no planned retirement date. By 2041 approximately 4,864 MW will reach 60 years of age in this 20-year study. Each utility will make their own determination on the life of their generating plants taking into account many factors, including economics. At this time, there are no plans to retire these older units unless stated in the report.

Although Nebraska has sufficient generating resources when including studied resources beyond 2040 as shown in Exhibits 3 & 4, utilities may face increased environmental restrictions that could require the retirement of older fossil units. This could advance the statewide need date several years earlier.

For illustration purposes only, if a 60-year in-service life for fossil units is arbitrarily chosen, the state would show a deficit in 2033, while a 70-year life of plant would show a state deficit in 2038. Exhibit 8 shows the 60-year in-service life chart. This example is considered conservative since fossil units are capable of operating for more than 70 years. Each utility will make their own determination on the life of their generating plants taking into account many factors, including economics. At this time, there are no plans to retire these older units unless stated in the report.

EXHIBIT 1 Summer Statewide Capability vs. Obligation Committed Resources (Includes Purchases and Sales)



**EXHIBIT 2
NEBRASKA STATEWIDE**

**Committed Load & Generating Capability in Megawatts
Summer Conditions (June 1 to September 30)**

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
1 Annual System Demand	7,338	7,438	7,590	7,648	7,917	7,921	7,908	7,909	7,926	7,741	7,752	7,779	7,802	7,821	7,834	7,862	7,880	7,899	7,911	7,938	0.4%
2 Firm Power Purchases - Total	1,184	1,182	1,176	1,178	1,179	1,180	1,181	1,182	1,183	1,184	1,185	1,186	1,187	1,188	1,189	1,190	1,191	1,192	1,194	1,195	
3 Firm Power Sales - Total	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	
4 Annual Net Peak Demand (1-2+3)	6,216	6,318	6,476	6,533	6,800	6,803	6,789	6,789	6,805	6,619	6,629	6,655	6,677	6,695	6,707	6,734	6,750	6,768	6,780	6,806	
5 Net Generating Capability (owned)	7,701	7,724	8,080	8,080	8,080	8,080	8,079	8,076	8,075	8,063	8,052	8,052	8,048	8,048	8,034	8,034	7,957	7,824	7,824	7,744	
6 Firm Capacity Purchases -Total	1,124	1,013	935	824	816	817	822	820	820	818	808	812	812	812	813	813	813	814	805	807	
7 Firm Capacity Sales -Total	1,168	1,196	987	867	741	741	740	733	732	731	728	728	725	724	724	724	724	724	724	724	
8 Adjusted Net Capability (5+6-7)	7,657	7,541	8,027	8,036	8,155	8,156	8,161	8,163	8,163	8,150	8,132	8,136	8,136	8,136	8,122	8,123	8,046	7,914	7,906	7,827	
9 Net Reserve Capacity Obligation (4 x 0.12)	746	758	777	784	816	816	815	815	817	794	796	799	801	803	805	808	810	812	814	817	
10 Total Firm Capacity Obligation (4+9)	6,962	7,076	7,253	7,317	7,616	7,620	7,604	7,604	7,622	7,413	7,425	7,454	7,478	7,498	7,512	7,542	7,560	7,581	7,593	7,623	
11 Surplus or Deficit (-) Capacity @ Minimum Obligation (8-10)	695.5	465.3	774.3	719.1	539.0	536.8	557.4	558.6	540.8	737.4	707.0	682.2	657.6	638.0	610.7	580.7	485.8	333.5	312.4	204.7	
12 Nebraska Reserve Margin ((8-4)/4)	23.2%	19.4%	24.0%	23.0%	19.9%	19.9%	20.2%	20.2%	19.9%	23.1%	22.7%	22.3%	21.8%	21.5%	21.1%	20.6%	19.2%	16.9%	16.6%	15.0%	
13 Nebraska Capacity Margin ((8-4)/8)	18.8%	16.2%	19.3%	18.7%	16.6%	16.6%	16.8%	16.8%	16.6%	18.8%	18.5%	18.2%	17.9%	17.7%	17.4%	17.1%	16.1%	14.5%	14.2%	13.0%	
Committed Resources (MW) (8+2-3)	8,084	8,196	8,367	8,432	8,733	8,737	8,723	8,724	8,743	8,535	8,548	8,577	8,603	8,624	8,639	8,670	8,690	8,711	8,725	8,755	
Minimum Obligation (MW) (1+9)																					

EXHIBIT 3 Summer Statewide Capability vs. Obligation Committed, Planned & Studied Resources (Includes Purchases and Sales)

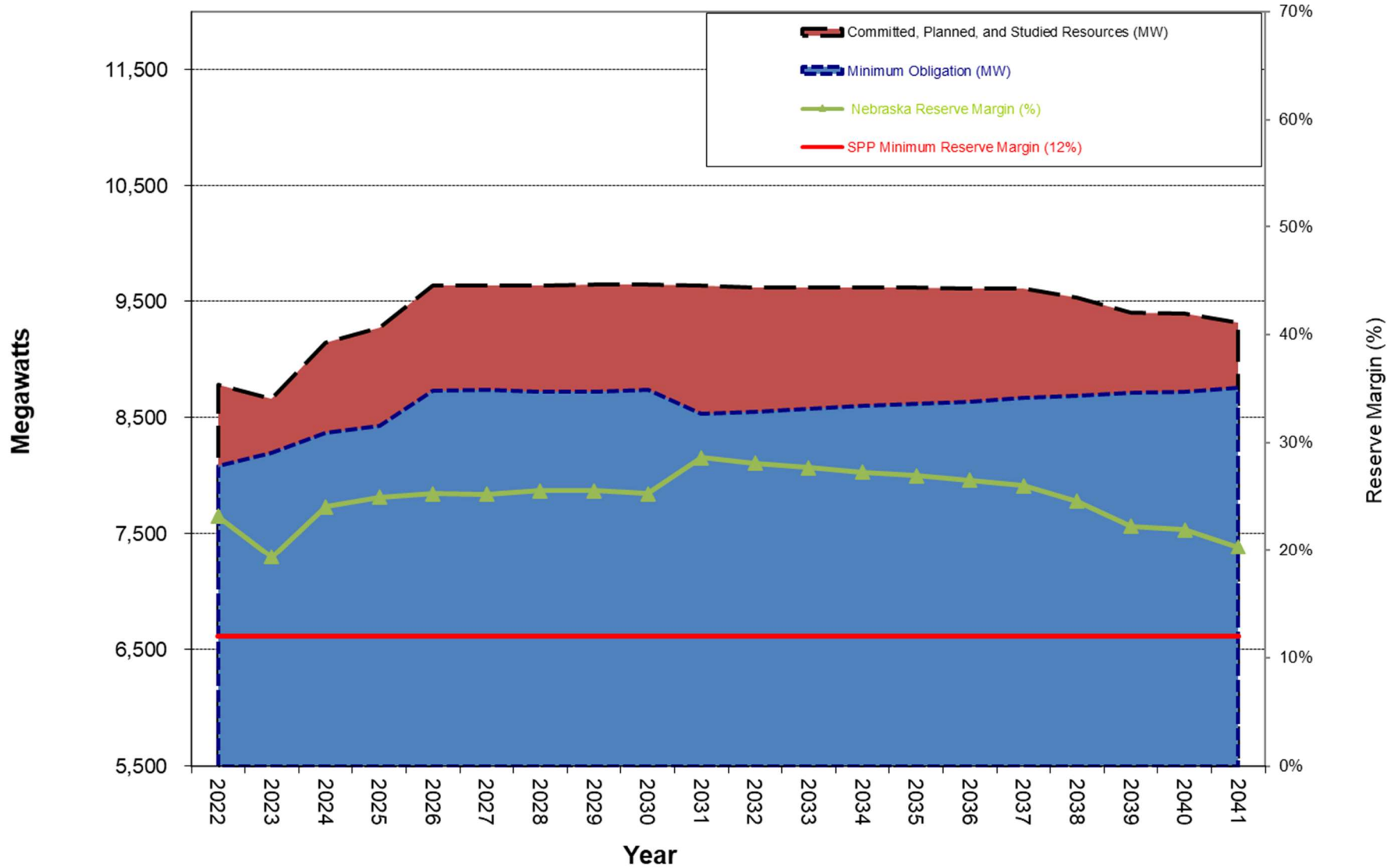


EXHIBIT 4
NEBRASKA STATEWIDE
Committed Load & Generating Capability in Megawatts
Summer Conditions (June 1 to September 30)

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
1 Annual System Demand	7,338	7,438	7,590	7,648	7,917	7,921	7,908	7,909	7,926	7,741	7,752	7,779	7,802	7,821	7,834	7,862	7,880	7,899	7,911	7,938
2 Firm Power Purchases - Total	1,184	1,182	1,176	1,178	1,179	1,180	1,181	1,182	1,183	1,184	1,185	1,186	1,187	1,188	1,189	1,190	1,191	1,192	1,194	1,195
3 Firm Power Sales - Total	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
4 Annual Net Peak Demand (1-2+3)	6,216	6,318	6,476	6,533	6,800	6,803	6,789	6,789	6,805	6,619	6,629	6,655	6,677	6,695	6,707	6,734	6,750	6,768	6,780	6,806
5 Net Generating Capability (owned)	7,701	7,724	8,088	8,207	8,442	8,441	8,441	8,438	8,436	8,425	8,413	8,413	8,410	8,410	8,396	8,396	8,319	8,186	8,186	8,106
6 Firm Capacity Purchases -Total	1,124	1,013	935	824	816	817	822	820	820	818	808	812	812	812	813	813	813	814	805	807
7 Firm Capacity Sales -Total	1,168	1,196	987	867	741	741	740	733	732	731	728	728	725	724	724	724	724	724	724	724
8 Adjusted Net Capability (5+6-7)	7,657	7,541	8,035	8,163	8,517	8,518	8,523	8,524	8,525	8,512	8,493	8,497	8,498	8,498	8,484	8,484	8,408	8,276	8,267	8,189
9 Net Reserve Capacity Obligation (4 x 0.12)	746	758	777	784	816	816	815	815	817	794	796	799	801	803	805	808	810	812	814	817
10 Total Firm Capacity Obligation (4+9)	6,962	7,076	7,253	7,317	7,616	7,620	7,604	7,604	7,622	7,413	7,425	7,454	7,478	7,498	7,512	7,542	7,560	7,581	7,593	7,623
11 Surplus or Deficit (-) Capacity @ Minimum Obligation (8-10)	695.5	465.3	782.4	846.2	900.7	898.5	919.1	920.3	902.5	1,099.1	1,068.7	1,043.9	1,019.3	999.7	972.4	942.4	847.5	695.2	674.1	566.4
12 Nebraska Reserve Margin ((8-4)/4)	23.2%	19.4%	24.1%	25.0%	25.2%	25.2%	25.5%	25.6%	25.3%	28.6%	28.1%	27.7%	27.3%	26.9%	26.5%	26.0%	24.6%	22.3%	21.9%	20.3%
13 Nebraska Capacity Margin ((8-4)/8)	18.8%	16.2%	19.4%	20.0%	20.2%	20.1%	20.3%	20.4%	20.2%	22.2%	21.9%	21.7%	21.4%	21.2%	20.9%	20.6%	19.7%	18.2%	18.0%	16.9%
Committed, Planned and Studied Resources (MW) (8+2-3)	8,780	8,661	9,150	9,279	9,633	9,636	9,642	9,644	9,645	9,634	9,616	9,621	9,623	9,624	9,611	9,613	9,537	9,406	9,399	9,322
Minimum Obligation (MW) (1+9)	8,084	8,196	8,367	8,432	8,733	8,737	8,723	8,724	8,743	8,535	8,548	8,577	8,603	8,624	8,639	8,670	8,690	8,711	8,725	8,755

EXHIBIT 1

Winter Statewide Capability vs. Obligation Committed Resources (Includes Purchases and Sales)

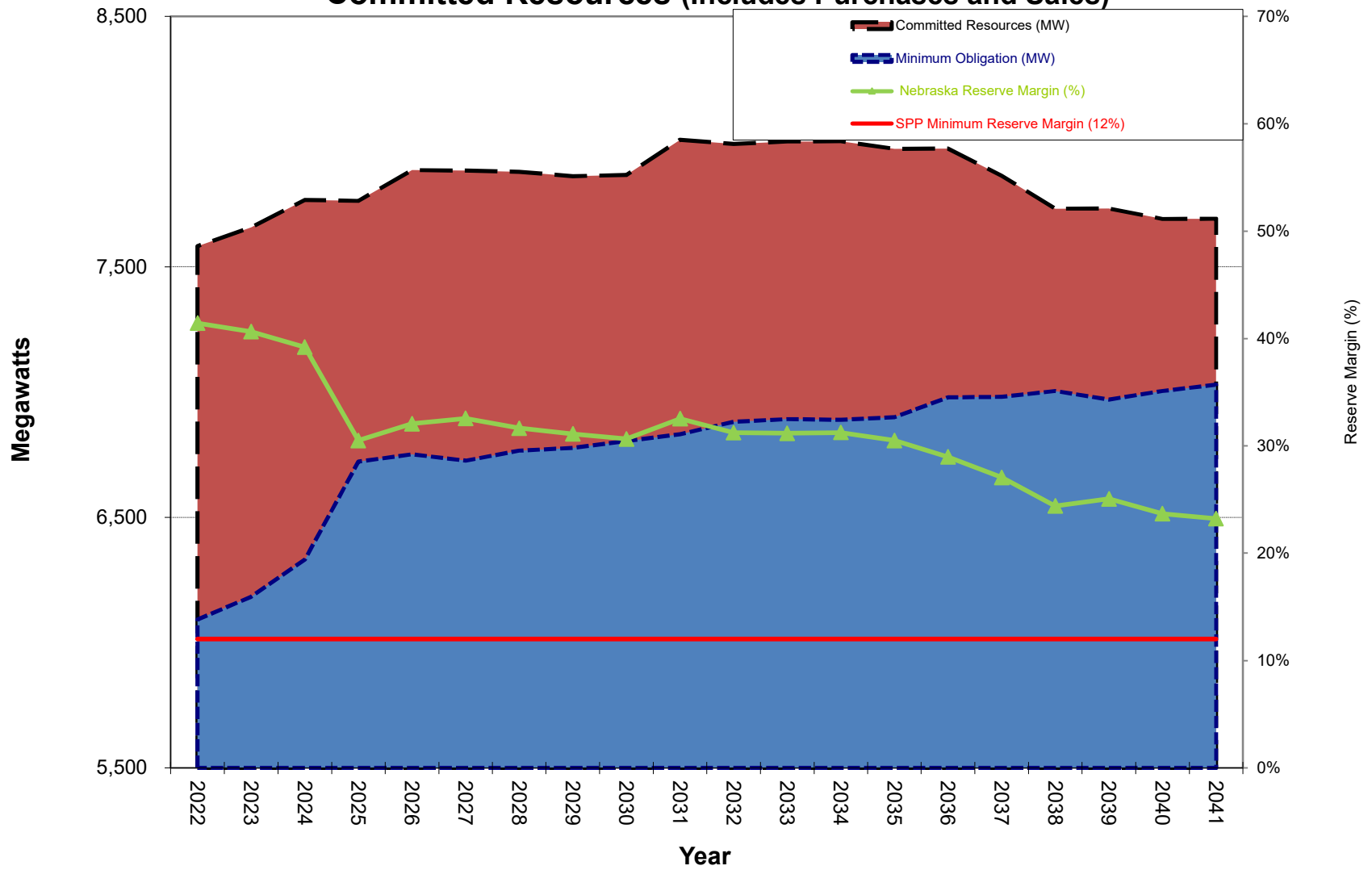


EXHIBIT 2
NEBRASKA STATEWIDE
Committed Load & Generating Capability in Megawatts
Winter Conditions (Dec 1 through Mar 31)

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
1 Annual System Demand	5,485	5,566	5,699	6,047	6,074	6,051	6,087	6,096	6,120	6,145	6,189	6,200	6,197	6,207	6,277	6,279	6,300	6,269	6,300	6,322	0.8%
2 Firm Power Purchases - Total	486	481	482	482	482	481	481	482	482	483	483	484	484	485	486	486	487	488	488	488	489
3 Firm Power Sales - Total	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
4 Annual Net Peak Demand (1-2+3)	5,061	5,147	5,279	5,627	5,654	5,632	5,668	5,677	5,700	5,724	5,768	5,778	5,775	5,784	5,853	5,854	5,875	5,844	5,874	5,895	
5 Net Generating Capability (owned)	7,146	7,276	7,397	7,388	7,381	7,379	7,379	7,370	7,355	7,503	7,494	7,488	7,485	7,454	7,454	7,345	7,233	7,233	7,184	7,183	
6 Firm Capacity Purchases -Total	1,102	1,063	946	830	834	834	829	815	827	820	809	818	818	818	819	819	799	799	799	800	
7 Firm Capacity Sales -Total	1,089	1,100	996	874	749	746	746	742	736	736	732	727	724	724	724	724	724	724	717	717	
8 Adjusted Net Capability (5+6-7)	7,159	7,239	7,348	7,344	7,466	7,466	7,461	7,443	7,447	7,587	7,570	7,579	7,579	7,549	7,549	7,440	7,308	7,308	7,266	7,265	
9 Net Reserve Capacity Obligation (4 x 0.12)	607	618	633	675	678	676	680	681	684	687	692	693	693	694	702	703	705	701	705	707	
10 Total Firm Capacity Obligation (4+9)	5,668	5,764	5,912	6,303	6,332	6,308	6,348	6,358	6,385	6,411	6,460	6,471	6,468	6,478	6,555	6,557	6,580	6,545	6,579	6,603	
11 Surplus or Deficit (-) Capacity @ Minimum Obligation (8-10)	1,490.5	1,474.4	1,435.4	1,041.5	1,134.2	1,158.5	1,113.2	1,085.0	1,062.7	1,175.9	1,109.7	1,107.8	1,111.5	1,070.6	993.2	882.7	728.5	763.5	686.8	662.6	
12 Nebraska Reserve Margin ((8-4)/4)	41.4%	40.6%	39.2%	30.5%	32.1%	32.6%	31.6%	31.1%	30.6%	32.5%	31.2%	31.2%	31.2%	30.5%	29.0%	27.1%	24.4%	25.1%	23.7%	23.2%	
13 Nebraska Capacity Margin ((8-4)/8)	29.3%	28.9%	28.2%	23.4%	24.3%	24.6%	24.0%	23.7%	23.5%	24.6%	23.8%	23.8%	23.8%	23.4%	22.5%	21.3%	19.6%	20.0%	19.2%	18.9%	
Committed Resources (MW) (8+2-3)	7,583	7,658	7,767	7,764	7,887	7,885	7,880	7,862	7,867	8,008	7,991	8,001	8,002	7,971	7,972	7,864	7,733	7,734	7,692	7,692	
Minimum Obligation (MW) (1+9)	6,093	6,184	6,332	6,723	6,753	6,727	6,767	6,777	6,804	6,832	6,881	6,893	6,890	6,901	6,979	6,981	7,005	6,970	7,005	7,030	

EXHIBIT 6.1
Statewide Renewable (Wind, Landfill, Solar and Biofuels) Generation by Nameplate

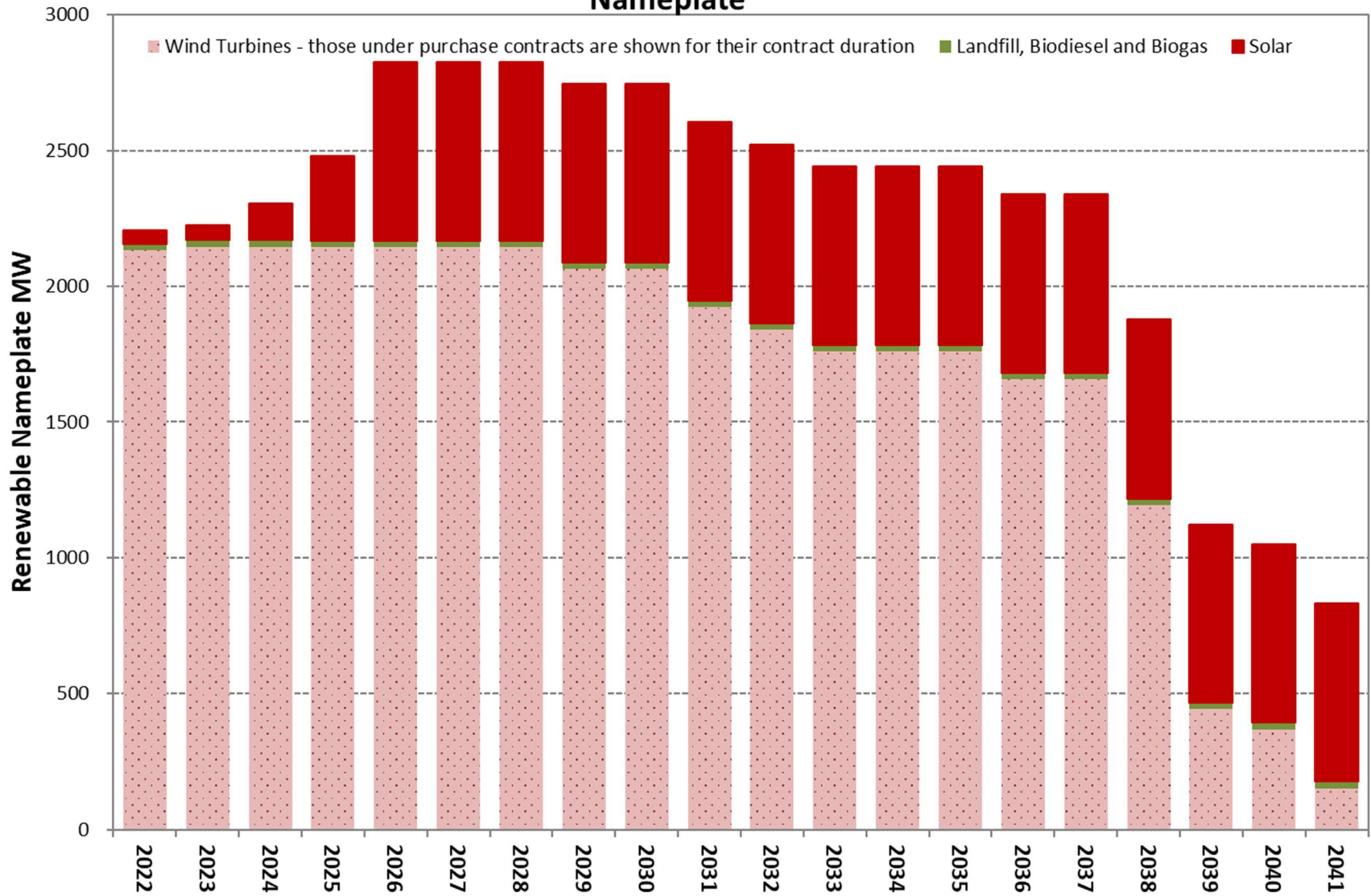


EXHIBIT 7

2022 Statewide Existing Generating Capability Data								
Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Summer Accredited Capacity	On Site Fuel Storage (Y/N)	Summer Utility Capacity
Towns/Districts	Cottonwood Wind NNPPD	I	WT	WND	2018	6.00	N	
	Cottonwood Wind SSC	I	WT	WND	2018	0.78	N	
	Cottonwood Wind Farm	I	WT	WND	2018	1.98	N	
	S. Sioux City NG Generation	P	IC	NG	2020	0.00		
Towns/Districts							0.00	8.8
Falls City	Falls City #7	P	IC	NG/DFO	1972	2.00	Y	
	Falls City #8	P	IC	NG/DFO	1981	5.00	Y	
	Falls City	P	IC	NG/DFO	2018	9.00	Y	
Falls City	Total						16.00	16.0
Fremont	Fremont #6	B	ST	SUB/NG	1958	16.57	Y	
	Fremont #7	B	ST	SUB/NG	1963	20.25	Y	
	Fremont #8	B	ST	SUB/NG	1976	86.23	Y	
	CT	P	GT	NG/DFO	2003	37.56		
	Cottonwood Wind Farm	I	WT	WND	2018	15.80		
Fremont	Total						123.05	176.4
Grand Island	Burdick GT1	P	GT	NG/DFO	1968	13.00	Y	
	Burdick GT2	P	GT	NG/DFO	2003	34.00	Y	
	Burdick GT3	P	GT	NG/DFO	2003	34.00	Y	
	Platte Generating Station	B	ST	SUB	1982	100.00	Y	
	Prairie Breeze 3 Wind	I	WT	WND	2016	0.00	N	
Grand Island	Total						181.00	181.0
Hastings	CCC Hastings Wind	I	WT	WND	2016	0.00	N	
	DHPC-#1	P	GT	NG/DFO	1972	18.00	Y	
	Hastings-NDS#4	P	ST	NG/DFO	1957	0.00	Y	
	Hastings-NDS#5	P	ST	NG/DFO	1967	0.00	Y	
	Whelan Energy Center #1	B	ST	SUB	1981	76.00	Y	
	Whelan Energy Center #2	B	ST	SUB	2011	220.00	Y	
Hastings	Total						314.00	314.0
LES	Arbuckle Mtn. Wind	I	WT	WND	2016	14.00	N	
	Buckeye Wind	I	WT	WND	2016	61.40	N	
	J St	P	GT	NG/DFO	1972	29.30	Y	
	Landfill Gas	B	IC	LFG	2014	4.80	N	
	Laramie River #1	B	ST	SUB	1982	198.00	Y	
	LES Community Solar	B	PV	SUN	2016	0.00	N	
	Prairie Breeze 2 Wind	I	WT	WND	2016	18.20	N	
	Rokeby 1	P	GT	NG/DFO	1975	70.50	Y	
	Rokeby 2	P	GT	NG/DFO	1997	90.40	Y	
	Rokeby 3	P	GT	NG/DFO	2001	94.20	Y	
	LES Wind Turbines	I	WT	WND	1999	0.00	N	
	Terry Bundy	P	CS	NG/DFO	2003	118.50	Y	
	Terry Bundy	P	GT	NG/DFO	2003	45.40	Y	
	Walter Scott #4	B	ST	SUB	2007	103.70	Y	
LES	Total						750.00	848.4
MEAN	Alliance #1	P	IC	DFO	2002	1.8690	Y	
	Alliance #2	P	IC	DFO	2002	1.8570	Y	
	Alliance #3	P	IC	DFO	2002	1.8200	Y	
	Ansley #2	P	IC	NG/DFO	1972	0.7500	Y	
	Ansley #3	P	IC	NG/DFO	1968	0.6000	Y	
	Benkelman #1	P	IC	NG/DFO	1968	0.7850	Y	
	Broken Bow #2	P	IC	NG/DFO	1971	3.2330	Y	
	Broken Bow #4	P	IC	NG/DFO	1949	0.7790	Y	
	Broken Bow #5	P	IC	NG/DFO	1959	0.9880	Y	
	Broken Bow #6	P	IC	NG/DFO	1961	1.9100	Y	
	Burwell#2	P	IC	NG/DFO	1962	0.7900	Y	
	Burwell#3	P	IC	NG/DFO	1967	1.0680	Y	
	Burwell#4	P	IC	NG/DFO	1972	1.1600	Y	

EXHIBIT 7

2022	Statewide Existing Generating Capability Data								
Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Summer Accredited Capacity	On Site Fuel Storage (Y/N)	Summer Utility Capacity	
MEAN (contd)	Callaway #3	P	IC	DFO	1958	0.4910	Y		
	Callaway #4	P	IC	DFO	2004	0.3840	Y		
	Chappell #5	P	IC	DFO	1982	0.8500	Y		
	Crete #7	P	IC	NG/DFO	1972	6.1510	Y		
	Curtis #1	P	IC	NG/DFO	1975	1.2900	Y		
	Curtis #2	P	IC	NG/DFO	1969	1.0760	Y		
	Curtis #4	P	IC	NG/DFO	1955	0.7000	Y		
	Kimball #1	P	IC	NG/DFO	1955	0.59	Y		
	Kimball #2	P	IC	NG/DFO	1956	0.51	Y		
	Kimball #3	P	IC	NG/DFO	1959	0.67	Y		
	Kimball #4	P	IC	NG/DFO	1960	0.65	Y		
	Kimball #5	P	IC	NG/DFO	1951	0.41	Y		
	Kimball #6	P	IC	NG/DFO	1975	2.17	Y		
	Oxford #2	P	IC	NG/DFO	1952	0.64	Y		
	Oxford #3	P	IC	NG/DFO	1956	0.90	Y		
	Oxford #4	P	IC	NG/DFO	1956	0.64	Y		
	Oxford #5	P	IC	DFO	1972	1.27	Y		
	Pender #1	P	IC	NG/DFO	1968	1.60	Y		
	Pender #2	P	IC	NG/DFO	1973	1.700	Y		
	Pender #3	P	IC	DFO	1953	0.500	Y		
	Pender #4	P	IC	DFO	1961	0.700	Y		
	Red Cloud #2	P	IC	NG/DFO	1953	0.650	Y		
	Red Cloud #3	P	IC	NG/DFO	1960	0.875	Y		
	Red Cloud #4	P	IC	NG/DFO	1968	0.900	Y		
	Red Cloud #5	P	IC	NG/DFO	1974	1.775	Y		
	Stuart #1	P	IC	NG/DFO	1965	0.723	Y		
	Stuart #4	P	IC	NG/DFO	1996	0.820	Y		
	West Point #2	P	IC	NG/DFO	1947	2.195	Y		
	West Point #3	P	IC	NG/DFO	1959	1.120	Y		
	West Point #4	P	IC	NG/DFO	1965	0.830	Y		
	Wisner #4	P	IC	DFO	2008	1.000	Y		
	Wisner #5	P	IC	DFO	2008	1.000	Y		
MEAN	Total						53.39	53.4	
NPPD	ADM	B	ST	SUB	2009	67.10	Y		
	Ainsworth Wind	I	WT	WND	2005	5.65	N		
	Auburn #1	P	IC	NG/DFO	1982	2.00	Y		
	Auburn #2	P	IC	NG/DFO	1949	1.00	Y		
	Auburn #4	P	IC	NG/DFO	1993	3.00	Y		
	Auburn #5	P	IC	NG/DFO	1973	3.00	Y		
	Auburn #6	P	IC	NG/DFO	1967	2.00	Y		
	Auburn #7	P	IC	NG/DFO	1987	5.00	Y		
	Beatrice Power Station	I	CS	NG	2005	219.50	N		
	Belleville 4	P	IC	NG/DFO	1955	0.00	Y		
	Belleville 5	P	IC	NG/DFO	1961	1.30	Y		
	Belleville 6	P	IC	NG/DFO	1966	2.60	Y		
	Belleville 7	P	IC	NG/DFO	1971	3.30	Y		
	Belleville 8	P	IC	NG/DFO	2006	2.80	Y		
	Broken Bow Wind	I	WT	WND	2013	12.19	N		
	Broken Bow II Wind	I	WT	WND	2014	12.56	N		
	Cambridge	P	IC	DFO	1972	3.00	Y		
	Canada	P	ST	NG	1958	99.30	N		
	Columbus 1	B	HY	WAT	1936	15.00	Y		
	Columbus 2	B	HY	WAT	1936	15.00	Y		
	Columbus 3	B	HY	WAT	1936	15.00	Y		
	Cooper	B	ST	NUC	1974	770.00	N		

EXHIBIT 7

2022	Statewide Existing Generating Capability Data								
Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Summer Accredited Capacity	On Site Fuel Storage (Y/N)	Summer Utility Capacity	
NPPD (contd)	Crofton Bluffs Wind	I	WT	WND	2013	8.04	N		
	David City 1	P	IC	NG/DFO	1960	1.30	Y		
	David City 2	P	IC	DFO	1949	0.80	Y		
	David City 3	P	IC	NG/DFO	1955	0.90	Y		
	David City 4	P	IC	NG/DFO	1966	1.80	Y		
	David City 5	P	IC	DFO	1996	1.33	Y		
	David City 6	P	IC	DFO	1996	1.33	Y		
	David City 7	P	IC	DFO	1996	1.34	Y		
	Elkhorn Ridge Wind	I	WT	WND	2009	8.66	N		
	Franklin 1	P	IC	NG/DFO	1963	0.92	Y		
	Franklin 2	P	IC	NG/DFO	1974	1.00	Y		
	Franklin 3	P	IC	NG/DFO	1968	1.00	Y		
	Franklin 4	P	IC	NG/DFO	1955	0.83	Y		
	Gentleman 1	B	ST	SUB	1979	665.00	Y		
	Gentleman 2	B	ST	SUB	1982	700.00	Y		
	Hallam	P	GT	DFO	1973	41.95	Y		
	Hebron	P	GT	NG	1973	41.95	N		
	Kearney	B	HY	WAT	1921	0.00	N		
	Kingsley (CNPPID)	B	HY	WAT	1985	41.67	Y		
	Laredo Ridge Wind	I	WT	WND	2011	16.29	N		
	Madison 1	P	IC	NG/DFO	1969	1.70	Y		
	Madison 2	P	IC	NG/DFO	1959	0.95	Y		
	Madison 3	P	IC	NG/DFO	1953	0.85	Y		
	Madison 4	P	IC	DFO	1946	0.50	Y		
	McCook	P	GT	DFO	1973	39.70	Y		
	Monroe	B	HY	WAT	1936	3.00	N		
	North Platte 1	B	HY	WAT	1935	12.00	Y		
	North Platte 2	B	HY	WAT	1935	12.00	Y		
	Ord 1	P	IC	NG/DFO	1973	5.00	Y		
	Ord 2	P	IC	NG/DFO	1966	1.00	Y		
	Ord 3	P	IC	NG/DFO	1963	2.00	Y		
	Ord 4	P	IC	DFO	1997	1.40	Y		
	Ord 5	P	IC	DFO	1997	1.40	Y		
	Sheldon 1	B	ST	SUB	1961	104.00	Y		
	Sheldon 2	B	ST	SUB	1965	113.00	Y		
	Springview Wind	I	WT	WND	2012	0.41	N		
	Steele Flats Wind	I	WT	WND	2013	24.48	N		
	Wahoo #1	P	IC	NG/DFO	1960	1.70	Y		
	Wahoo #3	P	IC	NG/DFO	1973	3.60	Y		
	Wahoo #5	P	IC	NG/DFO	1952	1.80	Y		
	Wahoo #6	P	IC	NG/DFO	1969	2.90	Y		
	Western Sugar	B	ST	SUB	2014	4.55	Y		
	Wilber 4	P	IC	DFO	1949	0.78	Y		
	Wilber 5	P	IC	DFO	1958	0.59	Y		
	Wilber 6	P	IC	DFO	1997	1.53	Y		
NPPD	Total						1915.22	3,137.3	

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2022 Statewide Existing Generating Capability Data									
Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Summer Accredited Capacity	On Site Fuel Storage (Y/N)	Summer Utility Capacity	
Wakefield	Wakefield 2	P	IC	NG/DFO	1955	0.54	Y		
	Wakefield 4	P	IC	NG/DFO	1961	0.80	Y		
	Wakefield 5	P	IC	NG/DFO	1966	1.08	Y		
	Wakefield 6	P	IC	NG/DFO	1971	1.13	Y		
	Wakefield	Total						3.55	3.6
	Wayne	Wayne 1	P	IC	DFO	1951	0.75	Y	
	Wayne 3	P	IC	DFO	1956	1.75	Y		
	Wayne 4	P	IC	DFO	1960	2.00	Y		
	Wayne 5	P	IC	DFO	1966	3.50	Y		
	Wayne 6	P	IC	DFO	1968	5.30	Y		
	Wayne 7	P	IC	DFO	1998	3.25	Y		
	Wayne 8	P	IC	DFO	1998	3.50	Y		
Wayne	Total						20.05	20.1	
Nebraska City	Nebraska City #5	P	IC	NG/DFO	1964	1.60	Y		
	Nebraska City #6	P	IC	NG/DFO	1967	1.50	Y		
	Nebraska City #7	P	IC	NG/DFO	1969	1.50	Y		
	Nebraska City #8	P	IC	NG/DFO	1970	3.50	Y		
	Nebraska City #9	P	IC	NG/DFO	1974	5.60	Y		
	Nebraska City #10	P	IC	NG/DFO	1979	5.80	Y		
	Nebraska City #11	P	IC	NG/DFO	1998	4.00	Y		
	Nebraska City #12	P	IC	NG/DFO	1998	4.00	Y		
	Nebraska City	Total						27.50	27.5
	NELIGH	Neligh	P	IC	OBL	2012	1.80	Y	
		Neligh	P	IC	OBL	2012	1.79	Y	
		Neligh	P	IC	OBL	2012	1.80	Y	
Neligh		P	IC	OBL	2012	0.34	Y		
Neligh	Total						5.73	5.7	
OPPD	Cass County #1	P	GT	NG	2003	162.00	N		
	Cass County #2	P	GT	NG	2003	161.80	N		
	Elk City Station #1-4	B	IC	LFG	2002	3.09	N		
	Elk City Station #5-8	B	IC	LFG	2006	2.92	N		
	Flat Water Wind	I	WT	WND	2011	10.20	N		
	Grande Prairie Wind	I	WT	WND	2016	76.80	N		
	Jones St. #1	P	GT	DFO	1973	61.20	Y		
	Jones St. #2	P	GT	DFO	1973	62.20	Y		
	Nebraska City #1	B	ST	SUB	1979	650.30	Y		
	Nebraska City #2	B	ST	SUB	2009	691.00	Y		
	North Omaha #1	B	ST	NG	1954	63.00	N		
	North Omaha #2	B	ST	NG	1957	71.80	N		
	North Omaha #3	B	ST	NG	1959	92.50	N		
	North Omaha #4	B	ST	SUB/NG	1963	117.70	Y		
	North Omaha #5	B	ST	SUB/NG	1968	216.20	Y		
	Petersburg Wind	I	WT	WND	2012	8.30	N		
	Prairie Breeze Wind	I	WT	WND	2014	44.80	N		
	Sarpy County #1	P	GT	NG/DFO	1972	55.40	Y		
	Sarpy County #2	P	GT	NG/DFO	1972	55.90	Y		
	Sarpy County #3	P	GT	NG/DFO	1996	107.80	Y		
	Sarpy County #4	P	GT	NG/DFO	2000	48.70	Y		
	Sarpy County #5	P	GT	NG/DFO	2000	47.90	Y		
	Sholes Wind	I	WT	WND	2019	87.60	N		
	Tecumseh #1	P	IC	DFO	1949	0.60	Y		
	Tecumseh #2	P	IC	DFO	1968	1.40	Y		
	Tecumseh #3	P	IC	DFO	1952	1.00	Y		
	Tecumseh #4	P	IC	DFO	1960	1.20	Y		
	Tecumseh #5	P	IC	DFO	1993	2.30	Y		
	OPPD	Total						2120.80	2,905.6
	SCRIBNER	Scribner #1	P	IC	OBL	2020	1.50	N	
		Scribner #2	P	IC	OBL	2020	1.50	N	
									3.0
Nebraska Grand Total							5,530.3	7,700.7	
	Duty Cycle			Fuel Type*					
	B-Base			NUC-Uranium		OBL-Biodiesel			
	I-Intermediate			NG-Natural Gas		WAT-Hydro			
	P-Peaking			DFO-Distillate Fuel Oil		LFG-Landfill Gas			
	ES- Energy Storage			ES- Energy Storage		WND-Wind			
		Unit Type*		SUB-Subbituminous Coal					
				IC-Internal Combustion, Reciprocating					
				ST-Steam Turbine, does not include combined cycle					
				GT-Combustion Turbine, including aeroderivatives					
				CS-Combined Cycle, single shaft (combustion turbine and steam turbine share single generator)					
				CA-Combined Cycle, Steam part					
				CT-Combined Cycle, Combustion Turbine part					
				HY-Hydro					
				PV-Photovoltaic					
				WT-Wind Turbine					

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22/23 Statewide Existing Generating Winter Capability Data								
Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Winter Accredited Capacity	On Site Fuel Storage (Y/N)	Winter Utility Capacity
Towns/Districts	Cottonwood Wind NNPPD	I	WT	WND	2018	6.00	N	
	Cottonwood Wind SSC	I	WT	WND	2018	0.78	N	
	Cottonwood Wind Farm	I	WT	WND	2018	3.09	N	
	S. Sioux City NG Generation	P	IC	NG	2020	0.00	N	
Towns/District							0.00	9.9
Falls City	Falls City #7	P	IC	NG/DFO	1972	3.00	Y	
	Falls City #8	P	IC	NG/DFO	1981	5.00	Y	
	Falls City	P	IC	NG/DFO	2018	8.00	Y	
Falls City	Total						16.00	16.0
Fremont	Fremont #6	B	ST	SUB/NG	1958	16.57	Y	
	Fremont #7	B	ST	SUB/NG	1963	20.25	Y	
	Fremont #8	B	ST	SUB/NG	1976	86.23	Y	
	CT	P	GT	NG/DFO	2003	37.56	Y	
	Cottonwood Wind Farm	I	WT	WND	2018	15.80	N	
Fremont	Total						160.61	176.4
Grand Island	Burdick GT1	P	GT	NG/DFO	1968	13.00	Y	
	Burdick GT2	P	GT	NG/DFO	2003	34.00	Y	
	Burdick GT3	P	GT	NG/DFO	2003	34.00	Y	
	Platte Generating Station	B	ST	SUB	1982	100.00	Y	
	Prairie Breeze 3 Wind	I	WT	WND	2016	0.00	N	
Grand Island	Total						181.00	181.0
Hastings	CCC Hastings Wind	I	WT	WND	2016	0.00	N	
	DHPC-#1	P	GT	NG/DFO	1972	18.00	Y	
	Hastings-NDS#4	P	ST	NG/DFO	1957	16.00	Y	
	Hastings-NDS#5	P	ST	NG/DFO	1967	24.00	Y	
	Whelan Energy Center #1	B	ST	SUB	1981	76.00	Y	
	Whelan Energy Center #2	B	ST	SUB	2011	220.00	Y	
Hastings	Total						354.00	354.0
LES	Arbuckle Mtn. Wind	I	WT	WND	2016	31.00	N	
	Buckeye Wind	I	WT	WND	2016	25.70	N	
	J St	P	GT	NG/DFO	1972	29.30	Y	
	Landfill Gas	B	IC	LFG	2014	4.80	N	
	Laramie River #1	B	ST	SUB	1982	198.00	Y	
	LES Community Solar	B	PV	SUN	2016	0.00	N	
	Prairie Breeze 2 Wind	I	WT	WND	2016	17.00	N	
	Rokeby 1	P	GT	NG/DFO	1975	70.50	Y	
	Rokeby 2	P	GT	NG/DFO	1997	90.40	Y	
	Rokeby 3	P	GT	NG/DFO	2001	94.20	Y	
	LES Wind Turbines	I	WT	WND	1999	0.00	N	
	Terry Bundy	P	CS	NG/DFO	2003	118.50	Y	
	Terry Bundy	P	GT	NG/DFO	2003	45.40	Y	
	Walter Scott #4	B	ST	SUB	2007	103.60	Y	
LES	Total						749.90	828.4
MEAN	Alliance #1	P	IC	DFO	2002	1.8690	Y	
	Alliance #2	P	IC	DFO	2002	1.8570	Y	
	Alliance #3	P	IC	DFO	2002	1.8200	Y	
	Ansley #2	P	IC	NG/DFO	1972	0.7500	Y	
	Ansley #3	P	IC	NG/DFO	1968	0.6000	Y	
	Benkelman #1	P	IC	NG/DFO	1968	0.7850	Y	
	Broken Bow #2	P	IC	NG/DFO	1971	3.2330	Y	
	Broken Bow #4	P	IC	NG/DFO	1949	0.7790	Y	
	Broken Bow #5	P	IC	NG/DFO	1959	0.9880	Y	
	Broken Bow #6	P	IC	NG/DFO	1961	1.9100	Y	
	Burwell#2	P	IC	NG/DFO	1962	0.7900	Y	
	Burwell#3	P	IC	NG/DFO	1967	1.0680	Y	
	Burwell#4	P	IC	NG/DFO	1972	1.1600	Y	

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22/23 Statewide Existing Generating Winter Capability Data

Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Winter Accredited Capacity	On Site Fuel Storage (Y/N)	Winter Utility Capacity
MEAN (contd)	Callaway #3	P	IC	DFO	1958	0.4910	Y	
	Callaway #4	P	IC	DFO	2004	0.3840	Y	
	Chappell #5	P	IC	DFO	1982	0.8500	Y	
	Crete #7	P	IC	NG/DFO	1972	6.1510	Y	
	Curtis #1	P	IC	NG/DFO	1975	1.2900	Y	
	Curtis #2	P	IC	NG/DFO	1969	1.0760	Y	
	Curtis #4	P	IC	NG/DFO	1955	0.7000	Y	
	Kimball #1	P	IC	NG/DFO	1955	0.59	Y	
	Kimball #2	P	IC	NG/DFO	1956	0.51	Y	
	Kimball #3	P	IC	NG/DFO	1959	0.67	Y	
	Kimball #4	P	IC	NG/DFO	1960	0.65	Y	
	Kimball #5	P	IC	NG/DFO	1951	0.41	Y	
	Kimball #6	P	IC	NG/DFO	1975	2.17	Y	
	Oxford #2	P	IC	NG/DFO	1952	0.64	Y	
	Oxford #3	P	IC	NG/DFO	1956	0.90	Y	
	Oxford #4	P	IC	NG/DFO	1956	0.64	Y	
	Oxford #5	P	IC	DFO	1972	1.27	Y	
	Pender #1	P	IC	NG/DFO	1968	1.600	Y	
	Pender #2	P	IC	NG/DFO	1973	1.700	Y	
	Pender #3	P	IC	DFO	1953	0.500	Y	
	Pender #4	P	IC	DFO	1961	0.700	Y	
	Red Cloud #2	P	IC	NG/DFO	1953	0.650	Y	
	Red Cloud #3	P	IC	NG/DFO	1960	0.875	Y	
	Red Cloud #4	P	IC	NG/DFO	1968	0.900	Y	
	Red Cloud #5	P	IC	NG/DFO	1974	1.775	Y	
	Stuart #1	P	IC	NG/DFO	1965	0.723	Y	
	Stuart #4	P	IC	NG/DFO	1996	0.820	Y	
	West Point #2	P	IC	NG/DFO	1947	2.195	Y	
	West Point #3	P	IC	NG/DFO	1959	1.120	Y	
	West Point #4	P	IC	NG/DFO	1965	0.830	Y	
Wisner #4	P	IC	DFO	2008	1.000	Y		
Wisner #5	P	IC	DFO	2008	1.000	Y		
MEAN	Total						53.39	53.4
NPPD	ADM	B	ST	SUB	2009	67.10	Y	
	Ainsworth Wind	I	WT	WND	2005	5.64	N	
	Auburn #1	P	IC	NG/DFO	1982	2.00	Y	
	Auburn #2	P	IC	NG/DFO	1949	1.00	Y	
	Auburn #4	P	IC	NG/DFO	1993	3.00	Y	
	Auburn #5	P	IC	NG/DFO	1973	3.00	Y	
	Auburn #6	P	IC	NG/DFO	1967	2.00	Y	
	Auburn #7	P	IC	NG/DFO	1987	5.00	Y	
	Beatrice Power Station	I	CS	NG	2005	219.50	N	
	Belleville 4	P	IC	NG/DFO	1955	0.00	Y	
	Belleville 5	P	IC	NG/DFO	1961	1.30	Y	
	Belleville 6	P	IC	NG/DFO	1966	2.60	Y	
	Belleville 7	P	IC	NG/DFO	1971	3.30	Y	
	Belleville 8	P	IC	NG/DFO	2006	2.80	Y	
	Broken Bow Wind	I	WT	WND	2013	13.99	N	
	Broken Bow II Wind	I	WT	WND	2014	21.16	N	
	Cambridge	P	IC	DFO	1972	3.00	Y	
	Canaday	P	ST	NG	1958	99.30	N	
	Columbus 1	B	HY	WAT	1936	15.00	Y	
	Columbus 2	B	HY	WAT	1936	15.00	Y	
Columbus 3	B	HY	WAT	1936	15.00	Y		
Cooper	B	ST	NUC	1974	770.00	N		

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22/23 Statewide Existing Generating Winter Capability Data

Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Winter Accredited Capacity	On Site Fuel Storage (Y/N)	Winter Utility Capacity
NPPD (contd)	Crofton Bluffs Wind	I	WT	WND	2013	10.04	N	
	David City 1	P	IC	NG/DFO	1960	1.30	Y	
	David City 2	P	IC	DFO	1949	0.80	Y	
	David City 3	P	IC	NG/DFO	1955	0.90	Y	
	David City 4	P	IC	NG/DFO	1966	1.80	Y	
	David City 5	P	IC	DFO	1996	1.33	Y	
	David City 6	P	IC	DFO	1996	1.33	Y	
	David City 7	P	IC	DFO	1996	1.34	Y	
	Elkhorn Ridge Wind	I	WT	WND	2009	11.76	N	
	Franklin 1	P	IC	NG/DFO	1963	0.92	Y	
	Franklin 2	P	IC	NG/DFO	1974	1.00	Y	
	Franklin 3	P	IC	NG/DFO	1968	1.00	Y	
	Franklin 4	P	IC	NG/DFO	1955	0.83	Y	
	Gentleman 1	B	ST	SUB	1979	665.00	Y	
	Gentleman 2	B	ST	SUB	1982	700.00	Y	
	Hallam	P	GT	DFO	1973	41.95	Y	
	Hebron	P	GT	NG	1973	41.95	N	
	Kearney	B	HY	WAT	1921	0.00	N	
	Kingsley (CNPPID)	B	HY	WAT	1985	41.67	Y	
	Laredo Ridge Wind	I	WT	WND	2011	16.29	N	
	Madison 1	P	IC	NG/DFO	1969	1.70	Y	
	Madison 2	P	IC	NG/DFO	1959	0.95	Y	
	Madison 3	P	IC	NG/DFO	1953	0.85	Y	
	Madison 4	P	IC	DFO	1946	0.50	Y	
	McCook	P	GT	DFO	1973	39.70	Y	
	Monroe	B	HY	WAT	1936	3.00	N	
	North Platte 1	B	HY	WAT	1935	12.00	Y	
	North Platte 2	B	HY	WAT	1935	12.00	Y	
	Ord 1	P	IC	NG/DFO	1973	5.00	Y	
	Ord 2	P	IC	NG/DFO	1966	1.00	Y	
	Ord 3	P	IC	NG/DFO	1963	2.00	Y	
	Ord 4	P	IC	DFO	1997	1.40	Y	
	Ord 5	P	IC	DFO	1997	1.40	Y	
	Sheldon 1	B	ST	SUB	1961	104.00	Y	
	Sheldon 2	B	ST	SUB	1965	113.00	Y	
	Springview Wind	I	WT	WND	2012	0.41	N	
	Steele Flats Wind	I	WT	WND	2013	24.48	N	
	Wahoo #1	P	IC	NG/DFO	1960	1.70	Y	
	Wahoo #3	P	IC	NG/DFO	1973	3.60	Y	
	Wahoo #5	P	IC	NG/DFO	1952	1.80	Y	
	Wahoo #6	P	IC	NG/DFO	1969	2.90	Y	
	Western Sugar	B	ST	SUB	2014	4.55	Y	
	Wilber 4	P	IC	DFO	1949	0.78	Y	
	Wilber 5	P	IC	DFO	1958	0.59	Y	
	Wilber 6	P	IC	DFO	1997	1.53	Y	
NPPD	Total						1915.22	3,152.80

EXHIBIT 7

22/23 Statewide Existing Generating Winter Capability Data

Utility	Unit Name	Duty Cycle	Unit Type	Fuel Type	Commercial Operation Date	Winter Accredited Capacity	On Site Fuel Storage (Y/N)	Winter Utility Capacity	
Wakefield	Wakefield 2	P	IC	NG/DFO	1955	0.50	Y		
	Wakefield 4	P	IC	NG/DFO	1961	0.80	Y		
	Wakefield 5	P	IC	NG/DFO	1966	1.08	Y		
	Wakefield 6	P	IC	NG/DFO	1971	1.13	Y		
Wakefield	Total						3.50	3.5	
Wayne	Wayne 1	P	IC	DFO	1951	0.75	Y		
	Wayne 3	P	IC	DFO	1956	1.75	Y		
	Wayne 4	P	IC	DFO	1960	2.00	Y		
	Wayne 5	P	IC	DFO	1966	3.50	Y		
	Wayne 6	P	IC	DFO	1968	5.30	Y		
	Wayne 7	P	IC	DFO	1998	3.25	Y		
	Wayne 8	P	IC	DFO	1998	3.50	Y		
	Wayne	Total						20.05	20.1
Nebraska City	Nebraska City #5	P	IC	NG/DFO	1964	1.62	Y		
	Nebraska City #6	P	IC	NG/DFO	1967	1.51	Y		
	Nebraska City #7	P	IC	NG/DFO	1969	1.47	Y		
	Nebraska City #8	P	IC	NG/DFO	1970	3.51	Y		
	Nebraska City #9	P	IC	NG/DFO	1974	5.60	Y		
	Nebraska City #10	P	IC	NG/DFO	1979	5.80	Y		
	Nebraska City #11	P	IC	NG/DFO	1998	3.94	Y		
	Nebraska City #12	P	IC	NG/DFO	1998	4.06	Y		
	Nebraska City	Total						27.50	27.5
	NELIGH	Neligh	P	IC	OBL	2012	1.80	Y	
		Neligh	P	IC	OBL	2012	1.79	Y	
		Neligh	P	IC	OBL	2012	1.80	Y	
Neligh		P	IC	OBL	2012	0.34	Y		
Neligh	Total						5.73	5.7	
OPPD	Cass County #1	P	GT	NG	2003	0.00	N		
	Cass County #2	P	GT	NG	2003	0.00	N		
	Elk City Station #1-4	B	IC	LFG	2002	3.09	N		
	Elk City Station #5-8	B	IC	LFG	2006	2.92	N		
	Flat Water Wind	I	WT	WND	2011	8.30	N		
	Grande Prairie Wind	I	WT	WND	2016	109.20	N		
	Jones St. #1	P	GT	DFO	1973	61.20	Y		
	Jones St. #2	P	GT	DFO	1973	62.20	Y		
	Nebraska City #1	B	ST	SUB	1979	650.30	Y		
	Nebraska City #2	B	ST	SUB	2009	691.00	Y		
	North Omaha #1	B	ST	NG	1954	0.00	N		
	North Omaha #2	B	ST	NG	1957	0.00	N		
	North Omaha #3	B	ST	NG	1959	0.00	N		
	North Omaha #4	B	ST	SUB/NG	1963	101.80	Y		
	North Omaha #5	B	ST	SUB/NG	1968	174.90	Y		
	Petersburg Wind	I	WT	WND	2012	14.74	N		
	Prairie Breeze Wind	I	WT	WND	2014	76.94	N		
	Sarpy County #1	P	GT	NG/DFO	1972	55.40	Y		
	Sarpy County #2	P	GT	NG/DFO	1972	55.90	Y		
	Sarpy County #3	P	GT	NG/DFO	1996	107.80	Y		
	Sarpy County #4	P	GT	NG/DFO	2000	48.70	Y		
	Sarpy County #5	P	GT	NG/DFO	2000	47.90	Y		
	Sholes Wind	I	WT	WND	2019	35.00	N		
	BRIGHT Battery	ES	ES	ES	2022	0.50	N		
	Tecumseh #1	P	IC	DFO	1949	0.60	Y		
	Tecumseh #2	P	IC	DFO	1968	1.40	Y		
	Tecumseh #3	P	IC	DFO	1952	1.00	Y		
	Tecumseh #4	P	IC	DFO	1960	1.20	Y		
	Tecumseh #5	P	IC	DFO	1993	2.30	Y		
	OPPD	Total						2063.60	2,314.3
SCRIBNER	Scribner #1	P	IC	OBL	2020	1.50	Y		
	Scribner #2	P	IC	OBL	2020	1.50	Y		
								3.0	
Nebraska Grand Total							TOTAL	5,550.5	7,145.9
	Duty Cycle			Fuel Type*					
	B-Base			NUC-Uranium		OBL-Biodiesel			
	I-Intermediate			NG-Natural Gas		WAT-Hydro			
	P-Peaking			DFO-Distillate Fuel Oil		LFG-Landfill Gas			
	ES - Energy Storage			ES- Energy Storage					
		Unit Type*		SUB-Subbituminous Coal		WND-Wind			
				IC-Internal Combustion, Reciprocating					
				ST-Steam Turbine, does not include combined cycle					
				GT-Combustion Turbine, including aeroderivatives					
				CS-Combined Cycle, single shaft (combustion turbine and steam turbine share single generator)					
				CA-Combined Cycle, Steam part					
				CT-Combined Cycle, Combustion Turbine part					
				HY-Hydro					
				PV-Photovoltaic					
				WT-Wind Turbine					

EXHIBIT 7.1

Statewide Renewable and Greenhouse Gas Mitigating Resources, MW

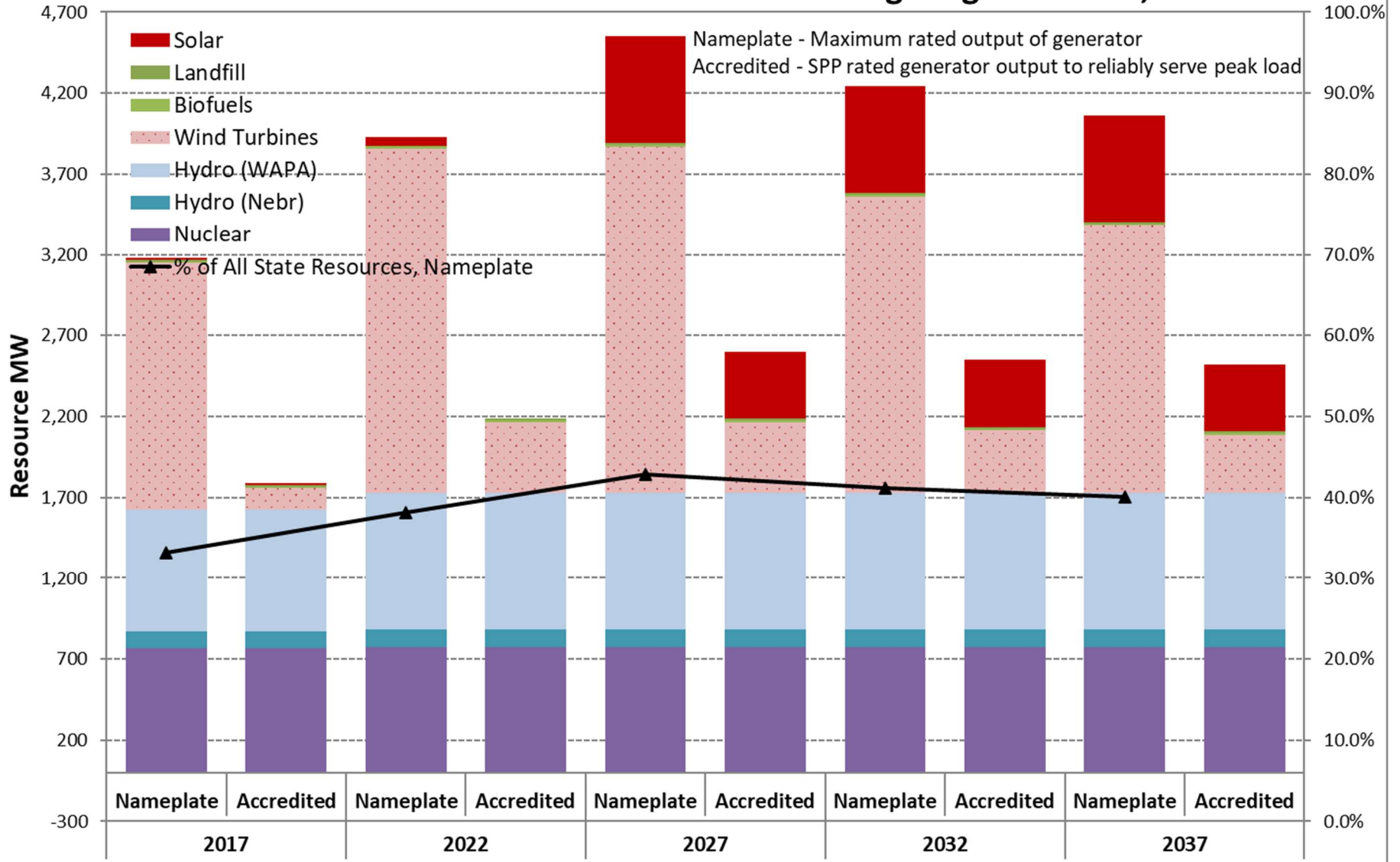


Exhibit 8 Statewide Capability vs. Obligation Committed Resources Less Retirements (Includes Purchases and Sales) (Fossil Units > 60 Years)

