Hayward Hydroelectric Project
FERC Project No. 2417

Exhibit A
Description of Project

Final License Application

Prepared for

Northern States Power Company
a Wisconsin Corporation

Prepared by

Mead & Hunt

meadhunt.com

Revised August 2024

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APPENDICES

LIST OF ABBREVIATIONS

Applicant........................Northern State Power Company, a Wisconsin corporation
cfs..................................cubic feet per second
DSM ....demand side management
FERC.............................Federal Energy Regulatory Commission
FLA................................Final License Application
FOE...............................Focus on Energy
kV ....Kilovolt
kVA................................Kilovolt Ampere
kW ....Kilowatt
Licensee........................Northern States Power Company, a Wisconsin corporation
MSL ....mean sea level
MWh ....Megawatt-hours
NGVD............................National Geodetic Vertical Datum, 1929
NSPW............................Northern States Power Company, a Wisconsin corporation
O&M ....Operation and management
Project ....Hayward Hydroelectric Project
PURPA..........................Public Utility Regulatory Policies Act
USGS ....United States Geological Survey

1. Project Description

Northern States Power Company, a Wisconsin Corporation (NSPW, Licensee or Applicant) is the owner and operator of the Hayward Hydroelectric Project (Project). The Project is located on the Namekagon River in the City of Hayward and Town of Hayward, Sawyer County, Wisconsin approximately 50 miles southwest of the City of Ashland, Wisconsin and 120 miles northeast of the City of Minneapolis, Minnesota. **Appendix A-1** includes a map depicting the general location of the Project. **Appendix A-2** includes an aerial photograph showing the Project's primary facilities. The Project has an authorized capacity of 168 kilowatts (kW) and includes a reservoir, dam, powerhouse with intake channel, tailrace or tailwater, transmission equipment, and appurtenant equipment. These features are described in the following paragraphs.[1]

2. Description of Dam Structures

The dam is approximately 442 feet long[2] and 15 feet high.[3] From left to right looking downstream, the main structures of the dam consist of a left earth embankment, a concrete overflow spillway, a middle earth embankment, a powerhouse with intake channel, and a right earth embankment.

2.1 Earth Embankments

The dam contains three earth embankments. From a perspective of looking downstream, there is the left earth embankment, the middle earth embankment, and the right earth embankment. The concrete overflow spillway separates the left and middle embankments and the powerhouse with the intake channel separates the middle and right embankments.

2.1.1 Left Earth Embankment

The left earth embankment extends 24 feet[4] from the left bank to the left abutment of the concrete overflow spillway. It is 85 feet wide at its base[5] and approximately 15 feet high. It has a top elevation of approximately 1,190.0 feet National Geodetic Vertical Datum (NGVD).[6]

The embankment is vegetated with grass and weeds. The concrete overflow spillway's left abutment serves as both a retaining wall for the left embankment and a training wall for spillway flows. The concrete wall is approximately 85 feet long and extends from the upstream end of the upstream apron to approximately 20 feet beyond the downstream end of the concrete overflow spillway apron.

The wall is a cantilever type retaining wall approximately 1 foot thick with a base slab approximately 2 feet wide and 1 foot thick. The height of the wall varies from approximately 4 feet

[1] Unless otherwise cited, all facility description attributes are from the Supporting Technical Information Document dated June 2010 (NSPW, 2010).
[2] Left earth embankment 24 feet, concrete overflow spillway 120 feet, middle earth embankment 80 feet, powerhouse 18 feet, and right earth embankment 200 feet.
[3] Crest elevation of right earth embankment is 1188.5 feet NGVD and foot of apron on the concrete overflow spillway is 1173.8 feet NGVD per Exhibit F-1.
[4] Distance scaled from the Final Construction Report for the Left Embankment Modifications Record Drawing C-02. Accession No. 20160107-0211.
[5] 85 feet is the length of the left spillway abutment wall.
[6] Maximum height determined from the Final Construction Report for the Left Embankment Modifications Record Drawing C-02. Accession No. 20160107-0211 and for the purposes of this application mean sea level (MSL) and NGVD are considered the same datum.

adjacent to the crest to approximately 10 feet at the downstream end of the spillway apron. The top of the sheetpile wall is anchored into the base of the concrete retaining wall with a concrete cap and anchor bolts. It is tied with steel rods to a steel sheetpile deadman buried in the left earth embankment. The upstream and downstream sides of the embankment are covered with filter fabric and riprap.

A drain system is installed within the left embankment to address seepage. The system consists of a collection basin, 32 linear feet of six-inch diameter buried perforated drain pipe, a concrete collar, 17 linear feet of six-inch diameter buried solid wall pipe and a weir box discharging to the bypass reach.

2.1.2 Middle Earth Embankment

The middle earth embankment extends approximately 80 feet from the right abutment of the concrete overflow spillway to the powerhouse. It is approximately 143 feet wide at its base from the upstream sheetpile wall to the normal tailwater elevation of 1,171.1 feet NGVD and approximately 17.4 feet high.

On the upstream side of the middle earth embankment, a steel sheetpile wall extends from the left side of the intake channel to the right side of the overflow spillway. The top elevation of the sheeting is approximately 1,188.3 feet NGVD. The downstream side of the sheetpiling is capped with concrete.

On the downstream side of the middle earth embankment, a concrete retaining wall extends from the left downstream side of the powerhouse approximately 30 feet. The retaining wall is approximately 11 inches thick at the top, 15 feet high, and is a gravity-type retaining wall.

The downstream slope of the remainder of the middle earth embankment between the retaining wall and concrete overflow spillway right abutment is approximately 4:1 (H:V).

2.1.3 Right Earth Embankment

The right earth embankment extends approximately 200 feet from the right abutment of the powerhouse to the right bank. It is approximately 100 feet wide[7] at its base from the upstream side of the crest to the normal tailwater elevation of 1,171.1 feet NGVD and approximately 17.4 feet high.[8]

The crest of the embankment, which also serves as a gravel access road, has an elevation of 1,188.5 feet NGVD. Along its upstream slope a concrete training wall extends approximately 23 feet upstream and to the right of the intake channel. The wall is approximately 18 to 24 inches thick at the top.

On the downstream side of the right earth embankment adjacent to the powerhouse is a buried concrete retaining wall. The concrete retaining wall is covered and supported on the downstream

[7] Distance scaled from Exhibit F-1.
[8] Crest elevation of right earth embankment is 1188.5 feet NGVD and normal tailwater elevation is 1171.1 feet NGVD per Exhibit F-1.

side by granular backfill at a variable slope of approximately 3:1 at the right bank to approximately 1.5:1 adjacent to the powerhouse. The downstream end of the embankment is covered with filter fabric and riprap.

The buried wall is approximately 90 feet long with two separate sections: a 27-foot-long section adjacent to the powerhouse and a 63-foot-long section. The 63-foot section is offset approximately 5 feet upstream from the right end of the 27-foot-long section and extends to the right. Both sections are gravity-type retaining walls. The retaining wall is approximately 11 inches thick at the top and widens toward the base and is approximately 8 feet high.

2.2 Concrete Overflow Spillway

The concrete overflow spillway is approximately 120 feet long from the left earth embankment to the middle earth embankment. It is approximately 50 feet in profile[9] from the upstream edge of the horizontal apron to the downstream edge of the sheetpile cutoff wall and has a height of approximately 14.2 feet.[10]

The overflow spillway consists of rock-filled timber cribbing with a concrete overlay which was refurbished in 2012. Beginning upstream, the overflow spillway includes a sloping or near horizontal upstream apron, a crest section with piers, a steel operator’s bridge, removable steel bulkheads with removable timber stoplogs on top in bays 3-10 located on the left side of the spillway and a slide gate in bays 1 and 2, a sloped rollway, a horizontal apron, and a downstream sheetpile cutoff wall. The elevation at the crest is 1183.4 feet NGVD and the downstream end of the spillway has an elevation of approximately 1173.8 feet NGVD.

The width of the steel bulkhead bays 3-10 are respectively: 11.5 feet, 11.7 feet, 11.3 feet, 11.6 feet, 11.5 feet, 11.55 feet, 11.35 feet, and 6.1 feet. Each steel bulkhead is 3.2 feet high with two removable timber stop logs on top for a maximum design elevation of 1187.6 feet NGVD. The steel bulkheads and boards can be lifted with a chain hoist on a monorail system.

The slide gates in bays 1 and 2 have a nominal width of 9.5 feet and 11.5 feet, respectively. Each gate is 4.4 feet high with a maximum design elevation of approximately 1,188.0 feet NGVD. Each slide gate is manually operated using a handwheel.

The eight steel bulkhead bays and two slide gate bays are separated by concrete piers with a nominal width of 16 inches. The upstream noses of the pier slope upstream and downward at approximately a 15-degree angle from vertical. Slots for the bulkheads are vertical and located approximately 4.8 feet downstream from the upstream noses.

2.3 Powerhouse with Intake Channel

The powerhouse structure is approximately 18 feet long (left to right) and extends 24 feet downstream. The powerhouse has a concrete substructure and a brick masonry wall superstructure which extends approximately 27.5 feet from the generator floor to the roof. The concrete substructure walls are approximately 1.5 feet thick.

[9] Distance scaled from Exhibit F-1.
[10] Top of spillway pier elevation of 1187.0 feet NGVD to foot of apron on the concrete overflow spillway of 1173.8 feet NGVD per Exhibit F-1.

The top of the concrete substructure has an approximate elevation of 1191.5 feet NGVD and the approximate elevation of the draft tube invert is 1164.7 feet NGVD giving it an overall height of 26.8 feet.

The top of the generator floor has an approximate elevation of 1190.3 feet NGVD. The draft tube is approximately 6.3 feet high.

2.3.1 Intake Channel

The intake channel is 42 feet long and consists of the concrete intake structure, one steel trashrack, steel bulkhead, access bridge and channel. The top of the side walls have an approximate elevation of 1188.8 feet NGVD. The intake channel structure sill is at an approximate elevation of 1176.1 feet NGVD and the channel width varies linearly from approximately 13 feet on the upstream side of the access bridge to approximately 8 feet on the downstream side of the bridge and remains 8 feet wide to the powerhouse.

At the upstream end of the intake channel are stoplog (bulkhead) slots which are built into the concrete channel side walls. Downstream of the stoplog (bulkhead) slots is a steel trashrack mounted near vertical across the intake. An 8-foot-wide concrete access bridge spans the intake channel downstream of the trashrack. Metal grating covers the top of the intake channel from the access bridge to the powerhouse. Two steel bulkheads are placed into the stoplog (bulkhead) slots, via a portable crane, to dewater the intake as needed. The bottom bulkhead is 6 feet high, 13 feet, 9 inches wide, and 8 inches thick. It sits on the base of the intake structure which has a sill elevation of 1,176.1 feet NGVD. The top bulkhead is 4 feet high, 13 feet, 9 inches wide, and 8 inches thick.

The single trashrack is 13.5 feet wide and has a clear spacing of 1.5 inches. The trashrack bar width is 0.25-inches with the top of the rack angled downstream approximately 10 degrees from vertical to facilitate cleaning. The trashrack height measured along the vertical axis at a minimum headwater elevation of 1187.0 feet NGVD is 10.9 feet and the unobstructed length along the sloped face is 10.1 feet.[11]

Trashrack raking is conducted on an as-needed basis year-round. Raking is typically not necessary during the winter, while summer raking is conducted every couple of weeks. Spring and fall experience the most debris and thus require the most raking, with fall being the busiest. Woody debris and vegetation are passed downstream, while trash is removed and disposed with other trash at the facility.

2.3.2 Turbine

The Project contains one S. Morgan Smith vertical Francis-Type turbine rated for 280 horsepower at 180 revolutions per minute. The runner diameter is 60 inches with a peripheral velocity of 47 feet per second (NSPW, 1991). The turbine has a minimum hydraulic capacity of 120 cubic feet per second (cfs) and a maximum hydraulic capacity of 178 cfs at an average head of 17 feet (NSPW, 1991).

2.3.3 Generator

[11] When calculating the flow area through the trashracks, it should be noted, the flow height of 10.1 feet is a total wetted vertical length of 11.125 feet (10.9/cos 10) minus 11.25 inches for 5 -1.25-inch horizontal supports and a 5-inch- high horizontal bottom support at a minimum headwater elevation of 1,187.0 feet NGVD. There is also a 0.25-inch-wide vertical bar on each side of the trashrack abutting the concrete walls of the intake channel .

The Project contains one 480-volt generator manufactured by the Northwestern Electric Equipment Company. It has a nameplate rating of 168 kW at 80% power factor.

2.3.4 Tailrace

The Project tailrace extends approximately 200 feet downstream of the powerhouse before its confluence with the Namekagon River. The tailwater has a depth of 8 feet at the downstream side of the powerhouse at a normal tailwater elevation of 1171.1 feet NGVD. The Project boundary extends downstream on the Namekagon River for an additional 400 feet downstream of the tailwater.

3. Description of Reservoir

The reservoir (Lake Hayward) encompasses approximately 246.9 acres with a gross storage capacity of approximately 1,234.5 acre-feet at the maximum reservoir elevation of 1,187.5 feet NGVD. It has a maximum depth of 17 feet at the dam and an estimated average depth of 5 feet (NSPW, 1991). The substrate consists of 60% sand, 8% gravel, 0% rock, and 32% muck (WI Department of Natural Resources, n.d.). The drainage area at the Project is 206 square miles (NSPW, 1991).

4. Transmission Equipment

There is a 150-foot-long, underground, 480-volt, three phase underground 250 MCM 600 V cable extending from the powerhouse to a 300 kilovolt Ampere (kVA), 480 volt to 12.5 kilovolt (kV) step-up pad mounted transformer. The high voltage side of the transformer is the point of interconnect with NSPW's non-project distribution system and NSPW is the entity receiving the Project generation.

5. Appurtenant Equipment

Appurtenant equipment includes, but is not limited to, bearing lubrication systems, powerhouse ventilation systems, protective devices, and metering devices.

6. Project Operation

The Project currently operates in a run-of-river mode where the discharge measured immediately downstream of the Project tailrace approximates the sum of inflows into the Project reservoir. This mode of operation minimizes the potential for adverse impacts on water quality, aquatic habitat, and other aquatic resources. At all times, NSPW will act to minimize the fluctuation of the reservoir by maintaining the elevation between 1,187.0 and 1,187.5 feet NGVD while targeting 1,187.4 feet. NSPW will not operate the Project between the low and high elevation on a daily basis for peaking purposes.

A minimum flow of 8 cfs or inflow, whichever is less, is currently released into the bypassed reach for the protection of fish and wildlife resources and water quality. The second slide gate is opened three inches year-round to pass the minimum flow. No changes to the minimum flow are proposed.

NSPW is not proposing any changes to operations under the subsequent license. The Project is operated in conjunction with the Trego Project located approximately 30 river miles downstream. An operator is assigned to oversee the daily operation and routine maintenance of both Projects. Eight-hour coverage is provided five days a week, Monday-Friday. The operator is on call 24 hours per day, seven days per week. The plant is manually operated with controls installed for automatic shutdown in case of operational emergencies. Whenever a unit or plant shutdown occurs, or if there is a high or low water alarm, the continually staffed control center at the Licensee's Wissota Hydroelectric Project is automatically notified.

For emergency operation of the facility, an operator is available 24 hours a day and can also be supported by the operator from White River Project, local line crews, the Ashland Bay Front Plant maintenance staff, and personnel from NSPW's Hydro Maintenance Department in Chippewa Falls, Wisconsin.

7. Safe Management, Operation, and Maintenance

NSPW has a robust Owners Dam Safety Program (ODSP) that incorporates all dam safety inspection requirements, monitoring responsibilities, and communications as required by the Federal Energy Regulatory Commission (FERC) for a dam of this classification. NSPW also ensures that adequate resources are available to fulfill all the requirements and obligations under the ODSP. The ODSP was revised and submitted to FERC on June 28, 2019 (NSPW, 2019).

NSPW developed a public safety plan in consultation with the FERC. The plan is reviewed on an annual basis to determine if changes are necessary. The plan was last updated in 2015 (NSPW, 2015).

As a result of a July 2016 flood incident, the spillway rating curve was updated and submitted to the Commission on May 31, 2017.[12]

8. Average Annual Generation

Average annual generation for the Hayward Project averaged approximately 1,242.2 Megawatt-hours[13] (MWh). Annual generation figures from 2016 through 2022 are shown in **Table A-1**.

Table A-1 Annual Generation 2016 to 2022

Year	Annual Generation (MWh)
2016	1,293
2017	925
2018	0
2019	139
2020	1,583
2021	1,017
2022	1,393
5-year average[14]	1,242.2

9. River Flow Characteristics

Streamflow information from the United States Geological Survey (USGS) Gaging Station No. 05331833 was used to develop flow duration curves for the Namekagon River. The gage location has a drainage

[12] Accession No. 20170531-5159.
[13] Since there was no generation in 2019 and for most of 2020, these years were excluded from the five-year average generation figure. To provide a more realistic five-year average generation number, generation from 2016 to 2017 and 2020 to 2022 were used instead.
[14] 2016 to 2017 and 2020 to 2022.

area of 126 square miles. The drainage area at the dam is approximately 206 square miles. Based on streamflow data from March 1996 to December 2021, and adjusted for the size of the drainage area at the dam, the mean flow at the Project was 225 cfs. The maximum annual calendar year flow was 343 cfs in 2016 and the minimum annual calendar year flow was 128 cfs in 2009. Monthly minimum, mean, and maximum flows at the Hayward Project are shown in **Table A-2**.

Table A-2 Monthly Flows at the Hayward Project from March 1996 to December 2021

Month	Minimum Monthly Flow (cfs)	Mean Monthly Flow (cfs)	Maximum Monthly Flow (cfs)
January	109	168	379
February	86	161	461
March	97	209	749
April	105	346	1,399
May	97	335	1,153
June	93	262	1,609
July	65	219	3,123
August	55	184	675
September	57	184	616
October	78	221	884
November	94	211	592
December	96	185	414

Source: (Mead & Hunt, 2022)

Streamflow duration data show the percentage of time a given flow is equaled or exceeded. Monthly flow duration curves and the annual exceedance table are based on data collected for the period of record from January 1996 to December 2021 and are included in **Appendix A-3**.

NSPW is not proposing any material changes to Project operations.

10. Purpose of the Project

The purpose of the Project is to generate renewable hydroelectric energy. NSPW is a public utility that produces, purchases, transmits, and distributes power to retail customers. The power generated by the Hayward Hydroelectric Project is delivered to NSPW's system for sale to its customers.

11. Estimated Project Cost

The Project is an existing FERC licensed facility. As of December 31, 2022 the net book value (net investment) was calculated at $524,701 and the gross book value was calculated at $1,402,843. These figures include the land and land rights, structures and improvements, waterway improvements, generating equipment, accessories, and miscellaneous equipment.

12. Estimated Costs of Proposed Environmental Measures

The estimated capital and additional annual Operation and Maintenance (O&M) costs for proposed environmental measures are outlined in **Table A-3**.

Table A-3 Estimated Capital and Additional O&M Costs for Proposed Environmental Measures at the Hayward Project

Item		Capital Cost	O&M Cost
Develop Aquatic and Terrestrial Species Plan and conduct biennial invasive surveys.		$40,000	$30,000[15]
Conduct an erosion survey of the Project's shoreline, including the tailwater area, within 5 years of license issuance and every 5 years thereafter. However, the frequency may be reduced based upon the results from the previous surveys.		$0	N/A[16]
Develop Historic Properties Management Plan in consultation with the Wisconsin SHPO, NPS and interested Native American Nations to follow requirements outlined in the 1993 PA.		$20,000	$25,000[17]
Develop an Operations and Compliance Monitoring Plan to include maintenance and calibration of monitoring equipment, deviation reporting, and agency consultation requirements.		$50,000[18]	$10,000
Recreational Measures	At the Canoe Portage Take-out and Carry-In Access site, review and maintain or improve signage, including Part 8 signage to meet current standards and add signage to include a map showing public recreation sites with access to waters within the Project boundary.	$7,000	$500[19]
	Coordinate with WDNR to obtain current invasive species signage for installation at the Canoe Portage Put-In site	$0	$500[20]
	At the Canoe Portage Trail and Put-In site, review and maintain or improve signage, including portage trail directional signage and Part 8 signage.	$7,000	$500[21]
	Conduct routine maintenance of NSPW's FERC-approved recreation sites over term of license.	$0	$2,000
	Conduct recreational site monitoring and prepare a report every 6 years as currently required under Article 414 of the existing Hayward license.	$0	$35,000
	Implement the Cave Bat BITP/A for any routine vegetation maintenance at NSPW's FERC-approved recreation sites.	$0	$1,000
	Review proposed ground disturbing and vegetation management activities to determine if located within 660 feet of a known eagle nest. If so, schedule work to be completed outside of the bald eagle nesting season.	$0	$1,000
	Implement Wood Turtle BITP/A for maintenance work at NSPW's FERC-approved recreation sites as long as turtle remains a listed species.	$0	$1,000
Total Cost		**$124,000**	**$N/A[22]**

[15] $30,000 is the additional cost per survey event, every other year.
[16] Cost for shoreline erosion survey is listed with the cost for the HPMP survey every 5 years.
[17] $20,000 is the cost per survey event every 5 years. $5,000 is the annual cost to implement the HPMP.
[18] Capital cost includes $20,000 for the display of operations data on a website and $30,000 for the development of the plan.
[19] O & M cost for installation and maintenance of new signage.
[20] O & M cost for installation and maintenance of new signage.
[21] O & M costs for installation and maintenance of new signage.
[22] The total O&M costs are not listed here because not all the costs are incurred annually.

13. License Application Development Costs

The costs for NSPW to relicense the Hayward Project under the Traditional Licensing Process through the filing of the Final License Application (FLA) are estimated at $271,407.

14. Estimated Value of On-Peak and Off-Peak Power

The Project operates in a run-of-river mode of operation; therefore, this section is not applicable.

15. Average Annual Increase or Decrease in Project Generation and Value of Power Due to Changes in Project Operations

NSPW is not proposing any material changes in the operation of the Project. Therefore, no changes in generation are expected and the average annual amount and value of project power for the term of the new license is projected to remain the same.

16. Remaining Undepreciated Net Investment, or Book Value, of the Project

The undepreciated net investment of the Project is $524,701 (book cost of $1,402,843 less accumulated depreciation of $878,142).

17. Annual Operation and Management Costs

The average annual cost to operate and maintain the Hayward Project for the period 2018-2022 is $220,078. These costs are outlined in **Table A-4** and include general O&M expenses, insurance, taxes, and depreciation. A breakdown of the individual components of the general O&M expense category is shown in **Table A-5**.

Table A-4 Annual Operation and Management Costs

Item	Cost
General O & M Expenses (5-year average)	$173,194
Insurance	N/A[23]
2022 Property Taxes	$11,592
2022 Depreciation	$35,292
Average Annual O & M Cost	**$220,078**

[23] NSPW pays a lump sum for insurance costs per operating company (i.e., NSPW, NSPM), therefore there are no insurance costs specific to the Hayward Project.

Table A-5 Cost Breakdown of General O&M Expense Category[24] (2018 to 2022)

Cost	2018	2019	2020	2021	2022	2018-2022 Mean
Employee Expenses	$4,229	$2,976	$4,546	$5,259	$4,353	$4,272
IT Costs	$11	$0	$0	$0	$0	$11
Labor	$50,374	$44,378	$64,606	$65,300	$59,845	$56,901
Materials & Commodities	$3,383	$3,058	$2,374	$616	$216,906	$42,267
Miscellaneous	$11,303	$1,253	$1,002	$8	$133	$2,740
Outside Services	$15,180	$8,750	$2,280	$20,795	$273,052	$64,012
Total General O&M Costs	**$84,481**	**$60,416**	**$74,807**	**$91,979**	**$554,288**	**$173,194**

18. One-Line Diagram of Electrical Circuits

The One-line Diagram of Electrical Circuits is included in **Appendix A-4**.

19. Lands of the United States

The Project is located within the St. Croix National Scenic Riverway, which was established as a result of the enactment by Congress of the Wild and Scenic Rivers Act in 1968 (National Park Service, n.d.a). However, there are no federal land reservations within the current or proposed Project boundaries.

20. Public Utilities Regulatory Policy Act

The Licensee is not seeking benefits under the Public Utility Regulatory Policies Act (PURPA) as it pertains to the Projects.

21. Supporting Design Report

The supporting design report is considered Critical Energy Infrastructure Information and has been filed as such as a separate document.

22. Applicant's Electricity Consumption Efficiency Improvement Programs

The Applicant is committed to energy conservation by using demand side management (DSM) measures as a means to meet customer energy needs. Cost-effective DSM resources, in the form of capacity and energy savings, are in essence "purchased" from the customer through incentives, subsidies, rate structures, or other means needed to meet system DSM goals and commitments. NSPW offers programs for its residential, commercial, and agricultural customers. Specific options in these programs include but are not limited to:

[24] Includes administrative costs.

Residential Programs

- Residential Rate Plans
    - Time of Day Service
    - Optional Off-Peak Service
    - Savers Switch Credit
- Residential Rewards {Focus on Energy (FOE)[25]}
    - Energy Saving Tips
    - Home rebates
        - Home Performance
        - Simple Energy Efficiency
        - New Homes
- Renewable Choices
    - Renewable Connect
    - Solar Connect Community
    - Net metering

Business Programs

- Equipment Rebates
- Energy Audits
- Renewable Programs
    - Renewable Connect
    - Solar
    - Working with Third Party Providers
- Energy Efficient Buildings
    - Multi-Family Building Efficiency (FOE)
    - Custom Efficiency
    - Efficient Facilities (FOE)
    - Energy Benchmarking
- Rate Programs
    - Electric Rate Savings
    - Savers Switch for Business

Farm Programs

- Farm Rewiring
- Agriculture and Farm Rebates

The Applicant's conservation programs have been approved by the Public Service Commission of Wisconsin.

[25] Funded through the Focus on Energy® program. Focus on Energy® is Wisconsin's energy efficiency and renewable resource program. It is funded by Wisconsin's investor-owned utilities and participating municipal and electric cooperative utilities, including NSPW's parent company, Xcel Energy.

23. Works Cited

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