



2019 EEI ESG Sustainability Report



The statements contained in this report and statements that ALLETE may make orally in connection with this report that are not historical facts, are forward-looking statements. Actual results may differ materially from those projected in the forward-looking statements. These forward-looking statements involve risks and uncertainties and investors are directed to the risks discussed in documents filed by ALLETE with the Securities and Exchange Commission.

INTRODUCTION

ALLETE is proud to play an integral role in transforming the energy landscape to create a cleaner, more resilient energy future. Consistent with our long history of engaging with all stakeholders, we believe in providing open and transparent metrics to evaluate and track this transformation. We are pleased to voluntarily provide this report and associated metrics through the Edison Electric Institute (EEI) Environmental, Social, and Governance (ESG) reporting template. The EEI template was developed in coordination with investors and EEI member companies to provide a consistent, open format to provide information on electric utilities' environmental, social, and governance achievements and progress.

ALLETE's companies include ALLETE Clean Energy, Minnesota Power, Superior Water Light & Power, and BNI Energy. While all ALLETE companies are committed to sustainable operations and have compelling individual stories, the majority of this ESG report focuses on the quantitative information derived from ALLETE's largest company, Minnesota Power (MP).

ALLETE COMPANIES



MINNESOTA POWER is moving to renewable energy faster and further than most similar utilities through innovative projects and partnerships. It serves customers, including large industrial customers that provide clean minerals for a clean energy economy, with safe and reliable power.



ALLETE CLEAN ENERGY leverages industry knowledge and innovation to bring clean energy to customers across North America. It has a growing reputation as a respected national player in wind energy as it builds relationships tied to new projects.



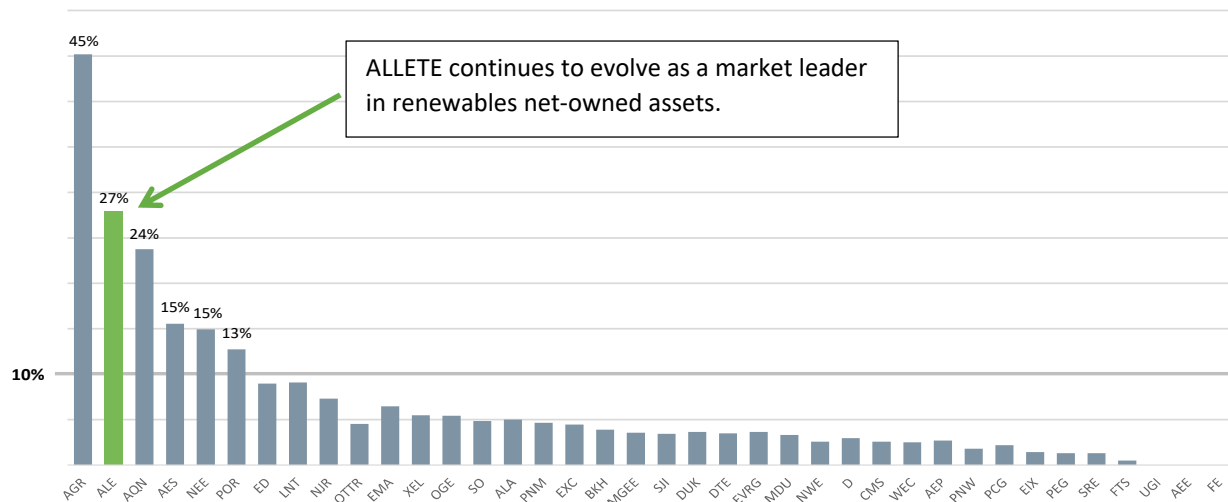
SUPERIOR WATER, LIGHT & POWER is transforming the way it delivers electricity, natural gas and water while giving its customers in northwestern Wisconsin more choices in ways to manage their energy use.



BNI ENERGY is a lignite coal mine that is also at the center of national efforts to develop carbon capture and sequestration for the energy industry. BNI is an industry leader in reclamation practices at its North Dakota mine.

ENVIRONMENTAL

ALLETE recognizes that the challenges arising from climate change requires real solutions, and increasing the amount of renewable energy in our portfolio has been a major undertaking at ALLETE for over a decade. By utilizing world-class wind and hydro resources, as well as solar deployments, ALLETE has become an industry leader in producing clean, reliable energy. Relative to its size, ALLETE is the second largest utility investor in renewables¹.



ALLETE continues to evolve as a market leader in renewables net-owned assets.

Figure 1. Solar and wind net-owned operating capacity/market cap shows ALLETE at #2. Bloomberg market data as of February 3, 2020.

ALLETE’s largest company, MP, has moved further and faster than any other Minnesota utility on renewables deployment, all while keeping reliability and affordability for our customers at the forefront. This strategy is projected to result in MP providing over 50 percent renewable energy by 2021 – expected to be the highest renewable percentage in Minnesota². Cutting-edge pollution control technologies and leading energy conservation practices have advanced in parallel, further improving our overall environmental performance.

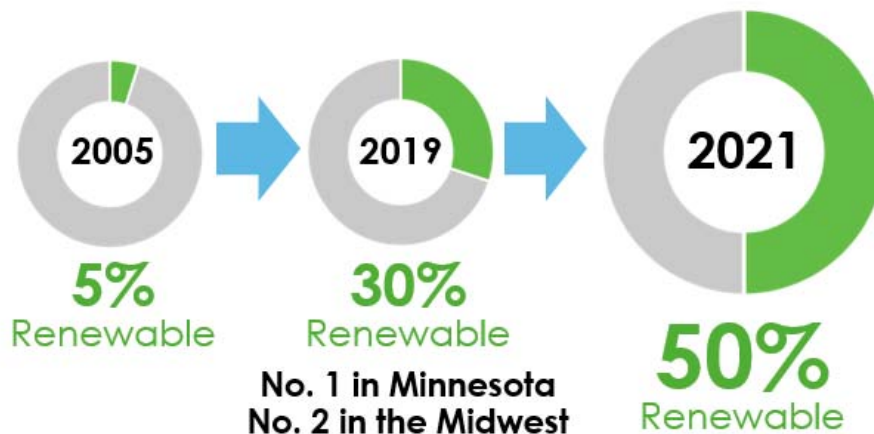


Figure 2. MP’s owned renewables in 2005 was 5%. By 2021, owned and purchased renewable generation is projected to be over 50%.

¹ Company public filings, SNL, Press Releases, Bloomberg market data as of 03-Feb-20

² Source: Navigant Consulting

KEY ENVIRONMENTAL ACCOMPLISHMENTS

From 2005 to 2021, ALLETE has added large amount of renewable power, significantly decreased carbon emissions, and dramatically reduced airborne pollutants like sulfur dioxide, nitrous oxides, and mercury. At the same time, our water usage and discharge have sharply decreased, with installation of advanced mercury and metals removal technology for discharges at our facilities.

MP has made great strides to reduce carbon and add renewables in the past fifteen years. MP plans to have a 50 percent renewable energy mix by 2021, the highest percentage of renewable energy for any Minnesota utility in that timeframe. MP's total carbon emissions are projected to decrease by over 50 percent from 2005 to 2021³.

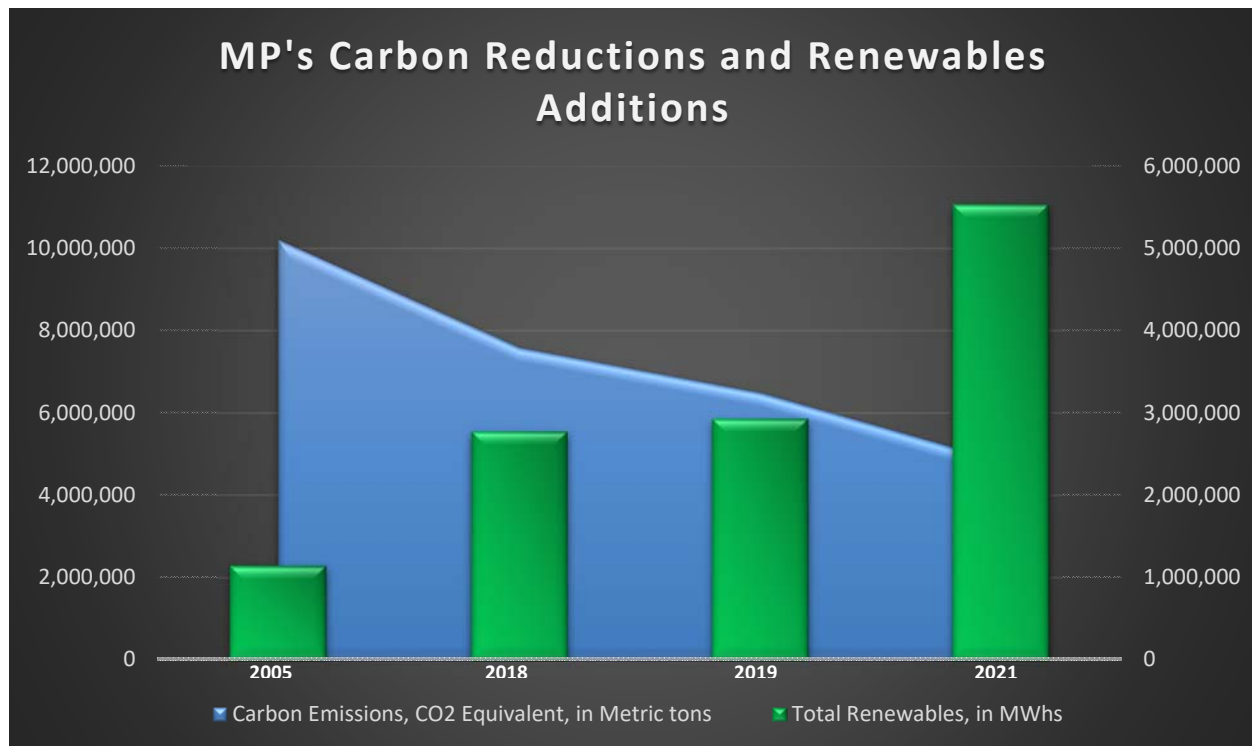


Figure 3. Carbon Reductions in metric tons (blue) and Total Renewables in megawatt-hours (green) from 2005 to 2021.

Although not captured in the EEI quantitative report, ALLETE's fastest growing company, ALLETE Clean Energy (ACE), has further advanced ALLETE's clean energy vision, adding over 700 megawatts of renewable wind power to the ALLETE portfolio in the past seven years. ACE is expected to reach 1,000 megawatts by the end of 2020.

Through resource decisions and installation of cutting-edge air pollution control technologies, MP has reduced NO_x emissions by 88% and SO₂ emissions by 98% in the past 15 years⁴. Mercury emissions have also collectively decreased by 97% percent at MP's Boswell, Laskin, and Taconite Harbor facilities since 2005, an extremely important emission reduction in our water-rich region. Since 2005, MP has reduced total water usage by 90%, for an average water reduction of over 150 billion gallons per year.

³ Reference Line 5.3.2.1 from Section 2 Metrics results in approximately 53% reduction in CO₂e emissions from 2005 to 2021.

⁴ Does not include emissions from Rapids Energy Center and Hibbard Renewable Energy Center, which provide both electric generation and steam generation.

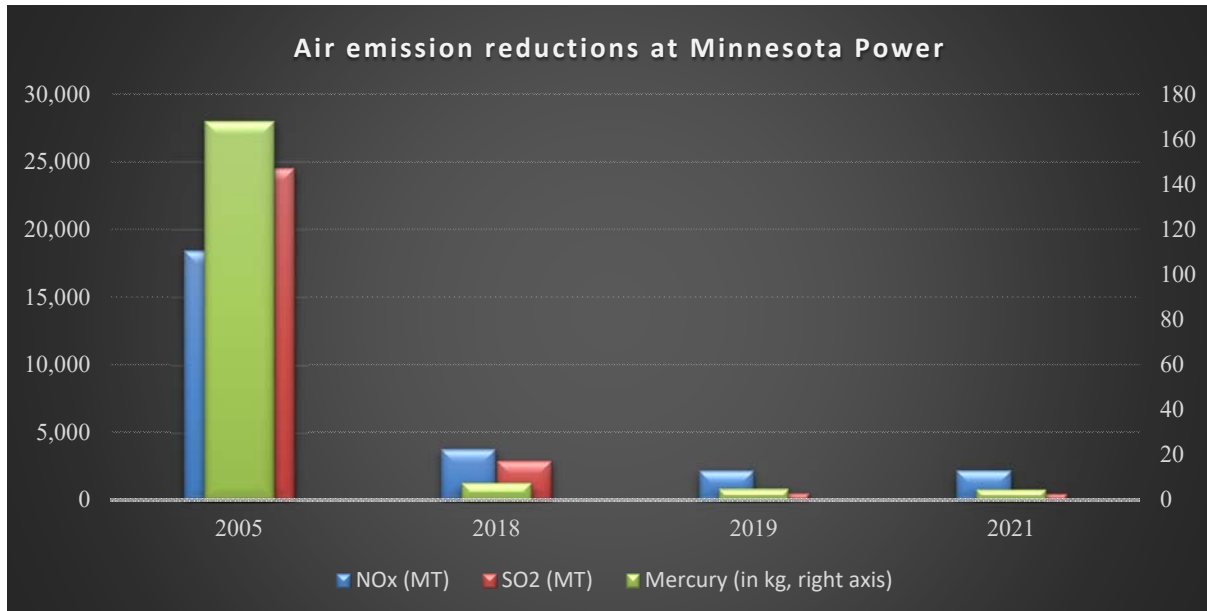


Figure 4. Emission reductions in metric tons (NO_x and SO₂, left axis) and kilograms (mercury, right axis) from Boswell, Laskin, and Taconite Harbor. Calculated from rows 6.2.1, 6.3.1, and 6.4.1.

We have developed a strong base of renewables

In 2019, MP has renewable energy assets of 522 megawatts of renewable wind generation, 11 megawatts of solar generation, 55 megawatts of renewable biomass, and 121 megawatts of hydro generation. Compared to 2005, we have increased our owned renewable generation assets by over 500 MW.

We have a strong plan to add even more carbon-free resources

MP also incorporates an energy purchase strategy that leverages additional wind and hydro generation, including the addition of 250 megawatts of wind energy from the Nobles 2 wind farm project, 250 megawatts of hydropower from Manitoba Hydro via our Great Northern Transmission Line, and 10 megawatts of additional solar. In addition to MP’s 11 megawatts of owned solar generation, at the end of 2018, our customer base had over 4 megawatts of customer-sited solar generation. As we continue to transition to more renewable energy sources, MP also intends to make use of advanced technology and the lower emissions of natural gas through our planned Nemadji Trail Energy Center (NTEC), a joint venture with Dairyland Power Cooperative. This will help ensure we continue to offer a high level of reliability and affordability for our customers and enable even more renewables to be incorporated into the electric system.

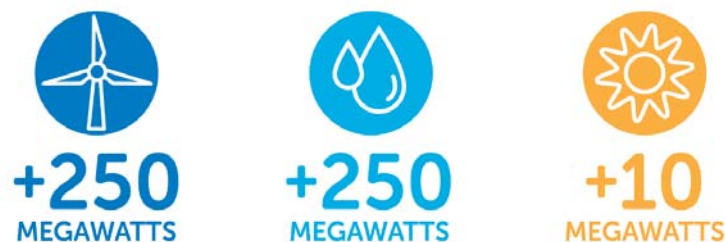


Figure 5. Planned additions to MP’s renewable plan for Nobles 2, Manitoba hydro, and additional solar resources.

SOCIAL

ALLETE's talented employees and the thriving communities we work in are key to our ability to consistently deliver safe, reliable, and affordable energy. We're proud of our employees, the respectful, inclusive, and values-based culture we have fostered, and our strong emphasis on helping our region prosper.

Our employees

Our company is committed to an open, safe, and respectful work environment for the 1,000-plus employees who work at ALLETE and its subsidiaries. All ALLETE employees are required to follow the [ALLETE Code of Business Conduct](#) and are encouraged to cultivate a work environment that promotes safety, honesty, and the highest ethical standards.

Our commitment to safety is manifested in our Zero Injury initiative. ALLETE and MP's recordable incident, lost time-case, and days away, restricted, and transfer (DART) rates⁵ have all decreased steadily as we sharpen focus on safety awareness and personal accountability.



Figure 6. Safety performance for ALLETE and MP from 2005 to 2019. These safety numbers do not include performance from SWL&P, ACE, or BNI.

Our customers

As detailed in the EEI quantitative section, MP's customer base includes approximately 123,000 residential, 24,000 commercial, and 379 industrial customers in 2019. We're actively helping our customers understand, manage and reduce their energy use, and have quadrupled our capital expenditures on energy efficiency and smart meters from approximately \$50 million in 2005 to over \$200 million in 2019. This investment has resulted in an increased annual energy savings of almost 30,000 megawatt-hours in 2019 compared with 2005, and has increased the percentage of customers with smart meters from zero in 2005 to over 80% in 2021.

⁵ Includes safety metrics from ALLETE and MP only; does not include SWLP, ACE, or BNI.

MP's industrial and commercial customers are among the area's largest employers. ALLETE is an avid supporter of environmentally responsible mining and the forest products, pipeline and other industries that power the economy in northern Minnesota. ALLETE employees are actively engaged in regional and local economic activities, contributing their expertise by serving on boards and working in partnership with government and other agencies, such as the Natural Resources Research Institute at the University of Minnesota-Duluth and the Minnesota Department of Transportation's Sustainable Transportation Advisory Council.

Our communities

Although there is no associated EEI metric for this category, ALLETE's community engagement underscores our commitment to help the businesses and people of the region we serve to prosper. Our engagement takes many forms, including contributions of time and talent to regional organizations like the United Way, direct financial contributions to community organizations and for scholarships, and sharing our expertise with students and community groups. In 2019, ALLETE businesses contributed \$287,468 in grants and donations, and the Minnesota Power Foundation donated an additional \$558,950⁶.

Numerous ALLETE employees serve on governing boards of not-for-profit entities and fill government appointments to public and quasi-public entities to support regional services, infrastructure, and economic development/business growth entities. ALLETE maintains its strong culture of volunteerism through the encouragement and support of company leaders, as well as the establishment of innovative programs such as Positively Powerful Team Grants, which donated \$500 to 37 separate employee volunteer efforts in 2019.

Our leaders

ALLETE has been named a 2020 Women on Boards Winning "W" Company seven times over. ALLETE currently has a ten-member board of directors, eight of whom are independent. There are five women on the board, including Bethany Owen as ALLETE President and CEO.



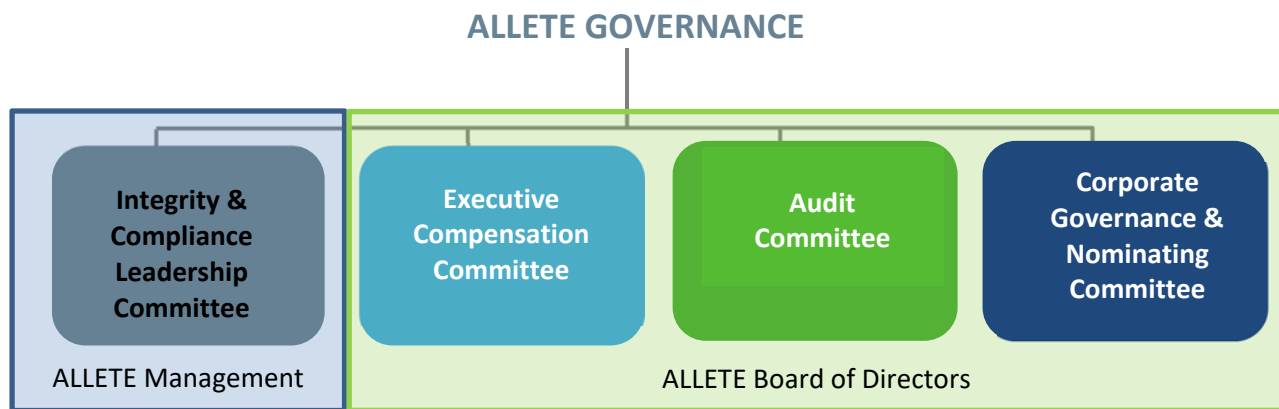
Figure 7. *Left:* The Employer Support of the Guard and Reserve in Minnesota honored ALLETE/Minnesota Power with the "Above and Beyond" award in May 2017. *Right:* In 2018, Bethany Owen, then senior vice president ALLETE and chief legal and administrative officer, accepted the Honor Roll award on behalf of ALLETE from Rebecca Hawthorne, co-author of the Minnesota Census of Women in Corporate Leadership. (Photo courtesy of Twin Cities Business magazine).

⁶ ALLETE Community Investment Report: <http://positivelypowerful.org/Content/Documents/community-investment-report.pdf>

GOVERNANCE

Our commitment to sustainability is led and supported through strong management and sound governance practices. For decades, ALLETE has advanced our energy vision while creating strong year-over-year shareholder returns, keeping our residential rates the lowest in Minnesota, and being a community leader in corporate giving and employee engagement. Sustainability is a key focus throughout ALLETE's governance structure.

A steadfast commitment to integrity and ethical behavior is the foundation of ALLETE and our business model, and the company has delivered consistent shareholder value for decades. We believe that strong governance is a key component of ensuring ALLETE continues to prosper, while protecting the planet and supporting and empowering employees, stakeholders, and our communities.



ALLETE's governance structure includes these committees with distinct charters.

The **Integrity & Compliance Leadership Committee**, consisting of senior leaders from all of ALLETE's businesses, oversees and maintains the company's compliance and integrity program, including the Business Code of Conduct and management of the company's integrity hotline.

The **Executive Compensation Committee (ECC)** establishes the company's philosophy and policies regarding executive and director compensation, and many other duties. The ECC's responsibilities also includes setting targets and measuring performance for sustainability-related objectives.

The **Audit Committee** assists the board's oversight of the integrity of ALLETE's financial statements and internal controls over financial reporting. It evaluates the company's compliance with corporate policies and procedures, as well as ALLETE's compliance with legal and regulatory requirements for environmental, social, and other obligations.

The **Corporate Governance and Nominating Committee** serves as the Executive Committee of the Board, and provides recommendations to the board with respect to board organization, membership, procedure, and function, including committee structure and membership. It also develops and reviews corporate governance principles, oversees the ALLETE Integrity & Compliance Leadership Committee, and provides recommendations for succession planning for the executive management of the company.



The 2019 ALLETE Board of Directors. *Standing (from left):* Heidi Jimmerson, Bethany Owen, Alan (Al) Hodnik, George Goldfarb, James (Jim) Hoolihan, Madeleine Ludlow. *Seated (from left):* Susan Nestegard, Douglas (Doug) Neve, Kathryn (Kitty) Dindo, Robert (Bob) Powers.





ESG/Sustainability Reporting – Section 2: Quantitative Information

Ref. No.	Refer to the 'Definitions' tab for more information on each metric	Baseline	Last Year	Current Year	Future Year	Comments, Links, Additional Information, and Notes	
		2005	2018	2019	2021		
Portfolio							
1	Owned Nameplate Generation Capacity at end of year (MW)					<p><i>Provide a link to charts or additional information if available</i></p> <p>The capacity values are based on Minnesota Power Regulated owned Installed Capacity ("ICAP") for dispatchable resource and name-plate capacity for Minnesota Power Regulated owned non-dispatchable renewables</p> <p><i>*Note: All emissions values have been adjusted to only reflect the carbon emissions associated with electricity used to serve Minnesota Power energy customers. See footnote at the bottom.</i></p>	
1.1	Coal	1,545	975	830	830		
1.2	Natural Gas		96	101	101		
1.3	Nuclear						
1.4	Petroleum						
1.5	Total Renewable Energy Resources	186	712	709	709		
1.5.1	Biomass/Biogas	72	57	55	55		
1.5.2	Geothermal						
1.5.3	Hydroelectric	115	122	121	121		
1.5.4	Solar		11	11	11		
1.5.5	Wind		522	522	522		
1.6	Other						
	TOTAL	1,732	1,783	1,640	1,640		
Use the data organizer on the left (i.e., the plus/minus symbol) to open/close the alternative generation reporting options							
2i	Owned Net Generation for the data year (MWh)						
2.1i	Coal	8,595,030	6,442,894	4,160,011	4,240,353		
2.2i	Natural Gas	0	14,202	20,109	15,038		
2.3i	Nuclear						
2.4i	Petroleum						
2.5i	Total Renewable Energy Resources	526,227	2,169,903	2,282,209	2,294,194		
2.5.1i	Biomass/Biogas	38,064	9,977	21,190	0		
2.5.2i	Geothermal						
2.5.3i	Hydroelectric	488,164	596,238	629,096	509,739		
2.5.4i	Solar	0	16,744	14,070	17,906		
2.5.5i	Wind	0	1,546,944	1,617,853	1,766,548		
2.6i	Other	0	0	0	0		
2.7i	Sales	-2,675,398	-3,531,775	-3,021,087	-1,468,105		
	TOTAL	6,445,860	5,095,224	3,441,242	5,081,479		
Use the data organizer on the left (i.e., the plus/minus symbol) to open/close the alternative generation reporting options							
2ii	Purchased Net Generation for the data year (MWh)						
2.1ii	Coal	2,301,209	901,678	674,539	723,918		
2.2ii	Natural Gas	53,243	18,229	30,624	0		
2.3ii	Nuclear						
2.4ii	Petroleum						
2.5ii	Total Renewable Energy Resources	614,057	605,183	645,939	3,238,548		
2.5.1ii	Biomass/Biogas	49,677	0	0	0		
2.5.2ii	Geothermal						
2.5.3ii	Hydroelectric	561,346	303,574	345,694	1,791,792		
2.5.4ii	Solar	0	1,959	1,663	15,489		
2.5.5ii	Wind	3,033	299,650	298,582	1,431,268		
2.6ii	Other	1,190,608	3,915,884	5,440,804	1,534,235		
2.7ii	Sales	0	0	0	0		
	TOTAL	4,159,116	5,440,974	6,791,906	5,496,701		
Use the data organizer on the left (i.e., the plus/minus symbol) to open/close the alternative generation reporting options							
3	Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters					<p><i>Provide a link to functional CapEx projections if available</i></p> <p>MP will file the 2021-2023 CIP Triennial in June 2020</p> <p>MP will file the 2021-2023 CIP Triennial in June 2020</p> <p>Data from EIA Form 861. Targeting 100% deployment by 2023-end.</p>	
3.1	Total Annual Capital Expenditures (nominal dollars)	\$52,790,000	\$197,700,000	\$218,818,000	\$235,000,000		
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	40,601	72,480	67,669	N/A		
3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	\$ 3,605,706	\$ 9,031,446	\$8,280,773	N/A		
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	0%	56%	61%	81%		
4	Retail Electric Customer Count (at end of year)					<p>Historical data from EIA Form 861: https://www.eia.gov/electricity/data/eia861/</p> <p>Future data from July 2019 Annual Forecast Report: https://www.edockets.state.mn.us/Efiling/edockets/searchDocuments.do?method=showPoup&documentId=%7b40ff006c-0000-c415-a4b2-</p>	
4.1	Commercial	20,763	23,804	24,035	24,359		
4.2	Industrial	460	380	379	360		
4.3	Residential	116,072	122,557	122,926	123,183		



ESG/Sustainability Reporting – Section 2: Quantitative Information

Ref. No.	Refer to the 'Definitions' tab for more information on each metric	Baseline	Last Year	Current Year	Future Year	Comments, Links, Additional Information, and Notes
		2005	2018	2019	2021	
Emissions						
5	GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e) <i>Note: The alternatives available below are intended to provide flexibility in reporting GHG emissions, and should be used to the extent appropriate for each company.</i>					*Note: All emissions values have been adjusted to only reflect the carbon emissions associated with electricity used to serve Minnesota Power energy customers. See footnote at the bottom.
5.1	Owned Generation (1) (2) (3)					we estimate the additional GHG equivalents by adding a factor of 1.002 onto the CO2 values
5.1.1	Carbon Dioxide (CO2)					
5.1.1.1	Total Owned Generation CO2 Emissions (MT)	8,944,412	3,142,517	1,210,847	2,782,868	
5.1.1.2	Total Owned Generation CO2 Emissions Intensity (MT/Net MWh)	1.388	0.617	0.352	0.548	
5.1.2	Carbon Dioxide Equivalent (CO2e)					
5.1.2.1	Total Owned Generation CO2e Emissions (MT)	8,962,301	3,148,802	1,213,269	2,788,434	
5.1.2.2	Total Owned Generation CO2e Emissions Intensity (MT/Net MWh)	1.390	0.618	0.353	0.549	
5.2	Purchased Power (4)					
5.2.1	Carbon Dioxide (CO2)					
5.2.1.1	Total Purchased Generation CO2 Emissions (MT)	1,234,533	4,413,546	5,249,805	2,027,896	
5.2.1.2	Total Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0.297	0.811	0.773	0.369	
5.2.2	Carbon Dioxide Equivalent (CO2e)					
5.2.2.1	Total Purchased Generation CO2e Emissions (MT)	1,237,002	4,422,373	5,260,304	2,031,952	
5.2.2.2	Total Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0.297	0.813	0.774	0.370	
5.3	Owned Generation + Purchased Power					
5.3.1	Carbon Dioxide (CO2)					
5.3.1.1	Total Owned + Purchased Generation CO2 Emissions (MT)	10,178,945	7,556,063	6,460,652	4,810,764	
5.3.1.2	Total Owned + Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0.960	0.717	0.631	0.455	
5.3.2	Carbon Dioxide Equivalent (CO2e)					
5.3.2.1	Total Owned + Purchased Generation CO2e Emissions (MT)	10,199,302	7,571,175	6,473,573	4,820,386	
5.3.2.2	Total Owned + Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0.962	0.719	0.633	0.456	
5.4	Non-Generation CO2e Emissions					
5.4.1	Fugitive CO2e emissions of sulfur hexafluoride (MT) (5)	N/A	N/A	N/A	Not Forecast	This is not a parameter we calculate / track / report
5.4.2	Fugitive CO2e emissions from natural gas distribution (MT) (6)	NR	NR	NR	NR	
6	Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg)					
6.1	Generation basis for calculation (7)	Fossil				Boswell, Laskin, and Taconite Harbor only
6.2	Nitrogen Oxide (NOx)					Boswell, Laskin, and Taconite Harbor only
6.2.1	Total NOx Emissions (MT)	18,437	3,761	2,147	2,207	
6.2.2	Total NOx Emissions Intensity (MT/Net MWh)	2.15E-03	5.82E-04	5.14E-04	5.19E-04	
6.3	Sulfur Dioxide (SO2)					Boswell, Laskin, and Taconite Harbor only
6.3.1	Total SO2 Emissions (MT)	24,528	2,896	524	487	
6.3.2	Total SO2 Emissions Intensity (MT/Net MWh)	2.87E-03	4.48E-04	1.25E-04	1.14E-04	
6.4	Mercury (Hg)					Boswell, Laskin, and Taconite Harbor only
6.4.1	Total Hg Emissions (kg)	168.3	8.0	4.9	4.9	
6.4.2	Total Hg Emissions Intensity (kg/Net MWh)	1.97E-05	1.24E-06	1.17E-06	1.15E-06	
Resources						
7	Human Resources					
7.1	Total Number of Employees	1,170	1,092	982	Not Forecast	ALLETE / MP only (no SWLP)
7.2	Total Number on Board of Directors/Trustees	9	12	10	Not Forecast	ALLETE / MP only (no SWLP)
7.3	Total Women on Board of Directors/Trustees	2	4	5	Not Forecast	ALLETE / MP only (no SWLP)
7.4	Total Minorities on Board of Directors/Trustees	NR	NR	NR	NR	This is not a parameter we calculate / track / report
7.5	Employee Safety Metrics					
7.5.1	Recordable Incident Rate	5.0	1.7	1.9	Not Forecast	ALLETE / MP only (no SWLP)
7.5.2	Lost-time Case Rate	1.3	0.1	0.3	Not Forecast	ALLETE / MP only (no SWLP)
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	2.1	0.4	0.7	Not Forecast	ALLETE / MP only (no SWLP)
7.5.4	Work-related Fatalities	0.0	0.0	0.0	Not Forecast	ALLETE / MP only (no SWLP)
8	Fresh Water Resources					
8.1	Water Withdrawals - Consumptive (Billions of Liters/Net MWh)	2.04E-06	2.07E-06	2.22E-06	3.01E-06	BEC, LEC, THEC Only - water use is trending down but appears to increase when intensity calculation (mwh) is applied
8.2	Water Withdrawals - Non-Consumptive (Billions of Liters/Net MWh)	7.30E-05	4.55E-05	1.29E-05	1.58E-05	BEC, LEC, THEC Only - water use is trending down but appears to increase when intensity calculation (mwh) is applied
9	Waste Products					
9.1	Amount of Hazardous Waste Manifested for Disposal	2,189	11,481	11,641	Not Forecast	MP only. Does NOT include PCB wastes, as these are not RCRA Hazardous Wastes
9.2	Percent of Coal Combustion Products Beneficially Used	0%	19%	18%	21%	
Additional Metrics (Optional)						
* The emissions and generation data provided in the EEI Sustainability has the electricity removed associated with off-system sales - this is electricity sold into the market or bilaterally that did not serve Minnesota Power customers. The removal of electricity associated with off-system sales provides the most accurate portrayal of CO2 emissions from electricity used to serve Minnesota Power customers.						