MGE Sustainability Goals and Progress

Sustainable Madison Committee • March 2024

Jeff Jaeckels
Director Safety Sustainability
and Environmental Affairs

80% reduced carbon emissions by 2030 | Net-Zero carbon electricity by 2050

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Agenda

- MGE's Sustainability Commitments
- GHG Emissions and Definitions
- Climate Science and GHG Emissions
- Progress Toward Our Goals
- Partnerships with the City
- MGE ESG Data Center

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MGE's Sustainability Commitments

- **80% reduced** carbon emissions by 2030
  Net-Zero carbon electricity by 2050
- **Net-Zero** methane emissions from our natural gas distribution system by 2035
- **2/3** coal-fired capacity eliminated by end of 2026
  Coal as a backup fuel by end of **2030**
  Zero ownership of coal by end of 2032
- **> $1 billion** in clean energy investment estimated through 2028*
- **100%** all-electric or plug-in hybrid light-duty MGE fleet vehicles by 2030

*Since 2015

Under our commitment, by 2030, every MGE electric customer will have 80% fewer emissions associated with their electricity use simply by being an MGE customer.

By 2050, MGE will have eliminated the carbon footprint associated with every MGE customer's electricity use under our net-zero carbon goal.

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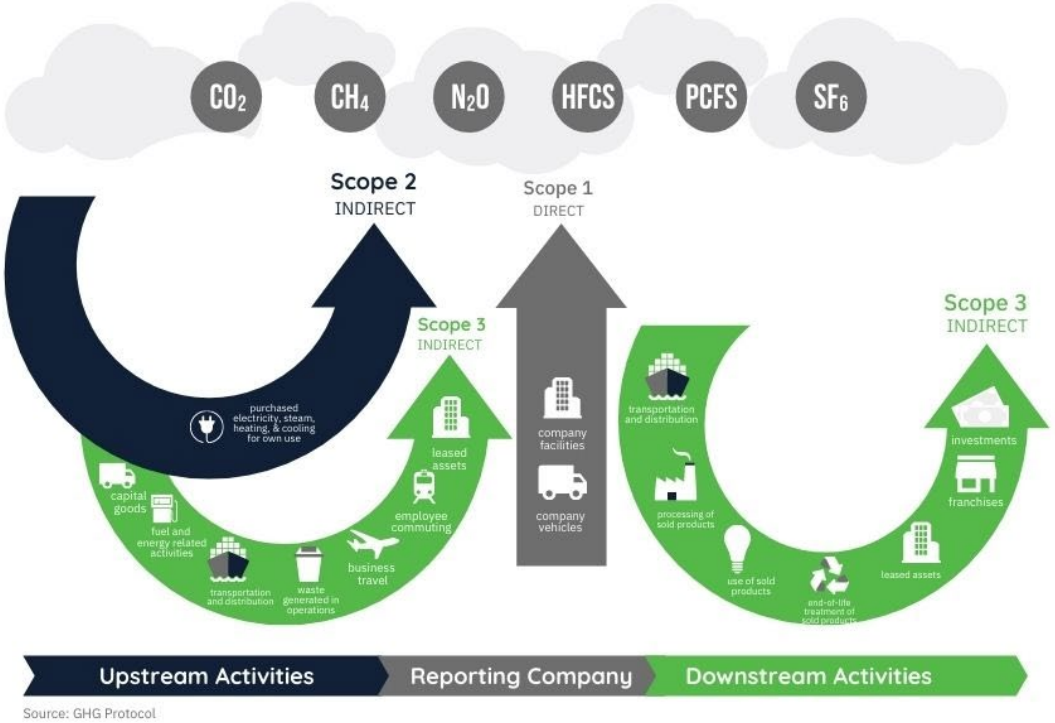
Significance of GHG Emissions and Definitions



Source: GHG Protocol

Our Scope 1 electric generation emissions are our customers' Scope 2 electricity emissions.

MGE's progress translates to customers.

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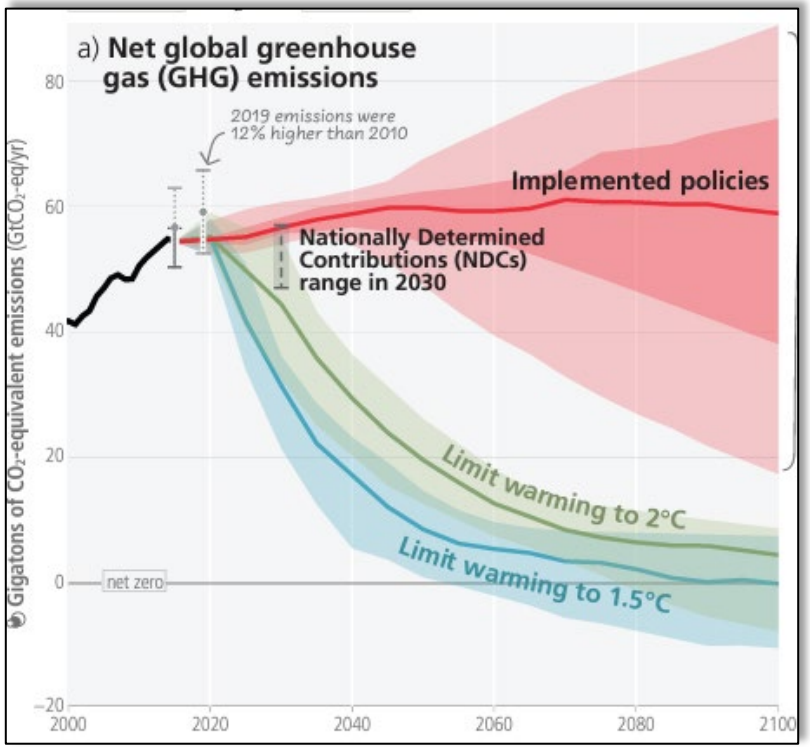
Climate Science and GHG Emissions

Its all about GHG reductions.

- IPCC climate science is continually updated.
- Steep CO2e reductions are needed to avoid the worst impacts of climate change.
- World economy target is net-zero carbon by mid-century.



IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

Working Toward Net-Zero Carbon

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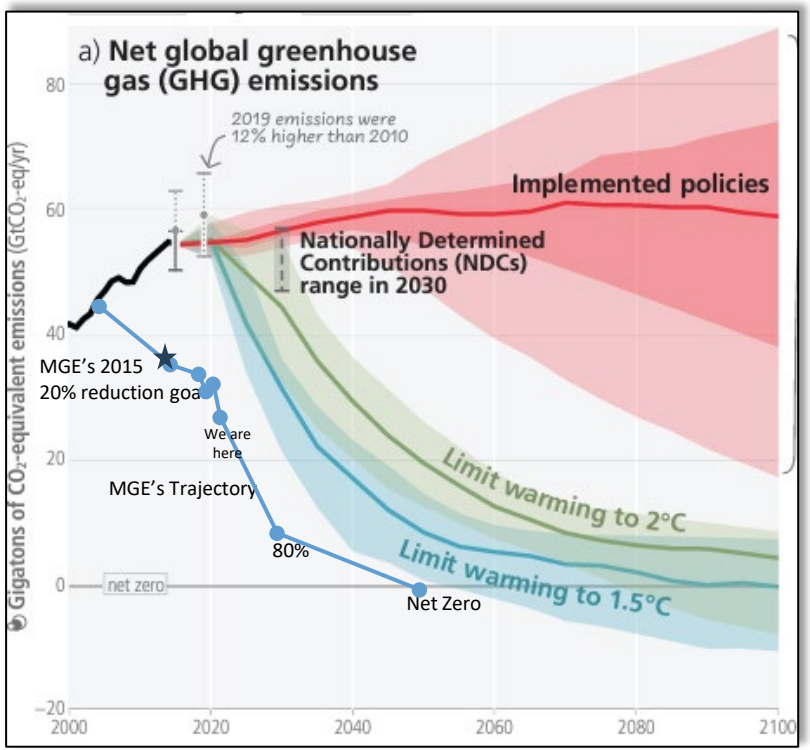
Net-Zero carbon electricity by 2050

Progress

- Met 2015 goal of 20% reduction
- Achieved about 40% reduction (currently)



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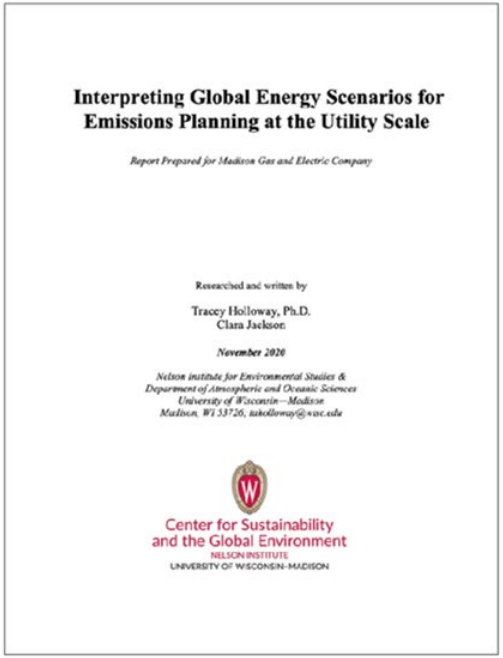
MGE scaled reductions from 2005 superimposed on IPCC scale.

Working Toward Net-Zero Carbon

Progress

- Halfway to our goal of 80% reduction in carbon by 2030
- Partnered with UW-Madison Nelson Institute for Environmental Studies
    - Conducted analysis of net-zero carbon electricity goal



Interpreting Global Energy Scenarios for Emissions Planning at the Utility Scale

Report Prepared for Madison Gas and Electric Company

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Working Toward Net-Zero Carbon

Deep decarbonization strategies

What MGE is doing:

- Decarbonizing our energy supply mix
  - MGE is greening the grid cost-effectively to serve ALL customers.

What MGE can help customers do:

- Advance energy efficiency
- Electrify transportation and other end uses

MGE is investing in a greener grid, enabling our customers to focus on their mission and other key strategies, such as energy efficiency and electrification, to achieve net-zero carbon.

“By 2050, MGE will have eliminated the carbon footprint associated with every MGE customer’s electricity use under our net-zero carbon goal.”

Same strategies identified by the IPCC and in our Energy 2030 framework

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Working Toward Net-Zero Carbon

MGE remains committed to maintaining energy affordability.

- Growing our use of cost-effective renewables, which carry no fuel costs.
- Helping manage our individual and collective use of energy to manage long-term costs for all customers.
- Our 2023 rate case set rates for 2024 and 2025.
  - The average annual electric rate increase from 2016 through 2025 is approximately 1.2%.

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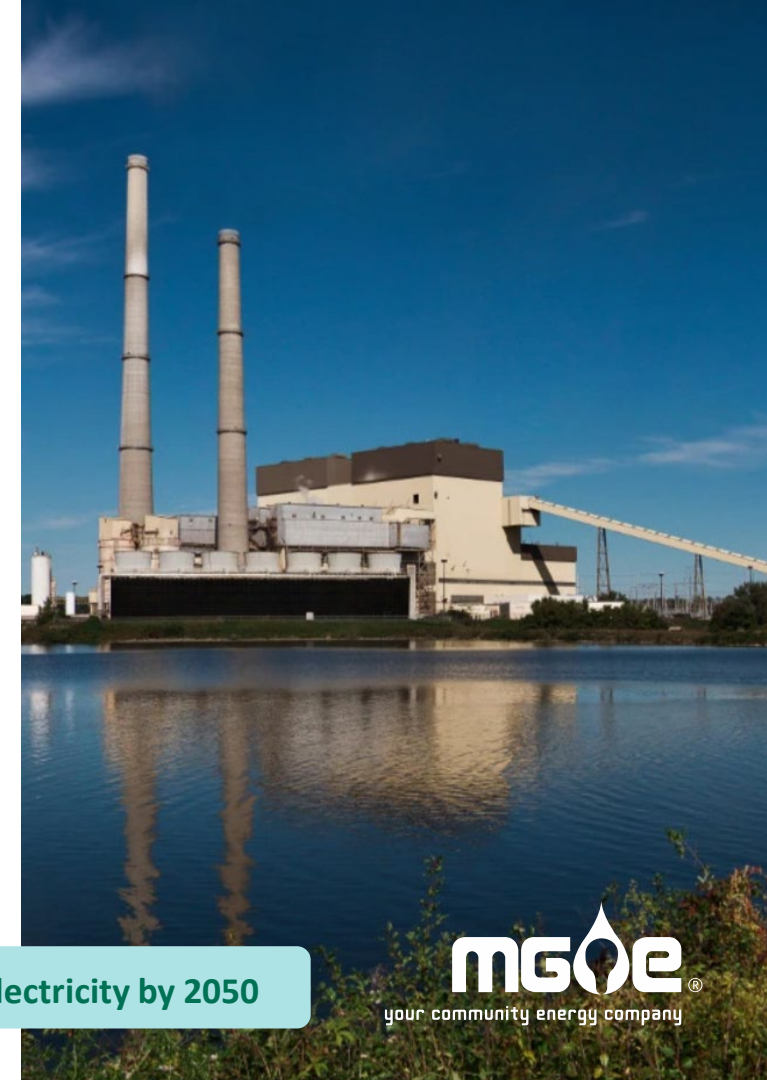
Eliminating Use of Coal

Ongoing transition from coal

2026	Planned retirement of Columbia Energy Center
2030	Coal as backup fuel at Elm Road Generating Station
2032	Coal-fired generation eliminated from portfolio



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Growing Our Use of Renewable Energy

Progress

- Ongoing growth of cost-effective renewable energy
- >50 MWs added since late 2023
- Another 50 MWs expected online this year

2017	Shared Solar — 0.5 MW
2018	Forward Energy Center Wind Farm — 17.6 MW
2019	Saratoga Wind Farm — 66 MW
2020	Morey Field Solar — 6 MW Two Creeks Solar — 50 MW Dane County Airport Solar — 10 MW
2021	Badger Hollow I Solar Farm — 50 MW O'Brien Solar Fields — 22 MW
2022	Hermsdorf Solar Fields — 8 MW
2023	Red Barn Wind Farm — 9.16 MW Badger Hollow II Solar Farm — 50 MW
2024	Tyto Solar — 6 MW Darien Solar Energy Center —25 MW solar (under construction) Paris Solar-Battery Park — 20 MW solar (under construction) Strix Solar — 6 MW (under construction)
2025	Paris Solar-Battery Park — 11 MW battery (under construction)
2026	Koshkonong Solar Energy Center — 30 MW solar (under construction) High Noon Solar Energy Center* — 30 MW solar

Pending regulatory approval.

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Transitioning MGE's Fleet to Electric

100% all-electric or plug-in hybrid light-duty MGE fleet vehicles by 2030

Progress

- Currently 30 out of 154 vehicles are EVs
  - 19% of our fleet
  - Charged on 100% renewable energy

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Working Toward Net-Zero Methane

Net-Zero methane emissions from our natural gas distribution system by 2035

Progress

- Continued high integrity piping and inspection program
- Getting better estimates of our emissions
- Pilot projects with technologies such as cross-compression gas control and advanced leak detection
- Renewable natural gas procurement

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Partnerships with the City

Electric Vehicles (EVs)

- MGE assisted Metro Transit in securing federal grant for three zero-emission buses
  - Contributed 100% of the required local matching funds for charging infrastructure
  - Facilitating charging capacity for BRT
- Provided fast charging for electric fire truck and Chevy Bolts
- Provided charging station for two electric refuse trucks expected in 2024
- Collaborating to place pole-mounted EV charging stations in neighborhoods without easy access to charging

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Partnerships with the City

Renewable Energy: MGE's Hermsdorf Solar Fields

- Provides energy for more than 20% of the City's operations
- Provides majority of the City's total renewable energy supply when combined with MGE's other clean energy projects

Current projections estimate the Hermsdorf project, combined with MGE's ongoing clean energy transition, will have reduced the City's carbon emissions from MGE electric purchases approximately 85% by 2030.

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MGE's ESG Data Center

ESG Data Center hosts our sustainability reporting.

- EEI-AGA ESG Template contains our most recent Scope 1 CO2 emissions and electric carbon intensity.

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Thank you

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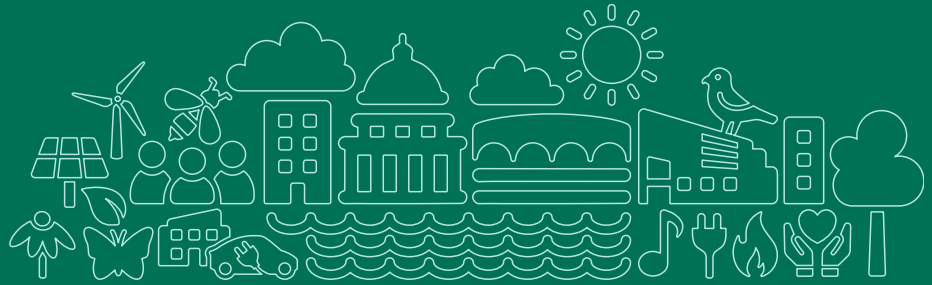

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