MGE City of Madison COLLABORATION TOPICS/PROJECTS DRAFT PROGRESS REPORT, November 2021

Below is a compilation of projects and initiatives that the City of Madison, members of the Sustainable Madison Committee, and MGE have collaborated on to help achieve our common energy goals. The list does not reflect all of the progress these entities have made apart from this collaboration.¹

A. EXPANSION OF SOLAR

MGE Shared Solar Program Expansion

- Morey Field Solar. MGE received PSCW approval in June 2019 to expand and modify its Shared Solar program with a 5 MW array at Morey Field in Middleton. The project went online in August 2020. The community solar program now provides local solar to both commercial and residential customers.
 - As with the first Shared Solar program, the City of Madison assisted with promotion of the program.
- City of Madison Community Development Authority. RENEW Wisconsin, the City of Madison and MGE worked together to offer solar energy to lower income Community Development Authority (CDA) residents through MGE's Shared Solar Program.

• Large scale MGE solar projects

The City of Madison provided a letter of support to the PSCW for approval of the Badger Hollow and Two Creeks utility-scale solar generation projects. Output from the two facilities will be purchased by MGE and Wisconsin Public Service Corporation. The PSCW approved the projects in April 2019.

In July 2021 the Sustainable Madison Committee (SMC) provided a letter of support to the PSCW for approval MGE's request to purchase energy from the Koshkonong Energy Center in northeastern Dane County. This is just one of several renewable energy projects MGE has pending with the PSCW at this time.

Below is a status of the three projects supported by the City or SMC:

¹ A complete compilation of progress and initiatives by MGE can be found in MGE's annual Corporate Sustainability Report at: https://www.mge.com/responsibility-and-sustainability/2020-corporate-report/sustainability-report

- Badger Hollow Solar Farm. The 300 MW project is under construction in southwestern Wisconsin. The first phase of the project was approved by the PSCW in April 2019, and MGE owns 50 MW of that phase. In February 2020, MGE received approval from the PSCW to acquire another 50 MW of the project, for a total of 100 MW.
- Two Creeks Solar Farm. This 150 MW solar project went online in November 2020, is located in northeastern Wisconsin, and MGE owns 50 MW.
- Koshkonong Energy Center. In April 2021, MGE sought approval from PSCW to purchase 30 MW of solar energy and 16.5 MW of battery storage from this facility, located in Dane County. If approved, this facility will begin construction in 2022.

• MGE Renewable Energy Rider Projects

MGE obtained approval in 2018 from the PSCW of a Renewable Energy Rider (RER) allowing MGE to negotiate contracts with larger customers, including the City of Madison, to provide all or a portion of their energy from a dedicated renewable energy resource.

Hermsdorf Solar

The City and MGE worked together to develop a largescale solar facility to serve City operations. In June 2021, MGE received approval from the PSCW for an 8 MW solar array to be built in Madison, known as the Hermsdorf Solar Project. It will provide locally generated solar energy to the City of Madison (5 MW), the Madison Metropolitan School District (3 MW) under the RER program. A groundbreaking was held in June 2021, and construction is underway.

City-owned distributed generation

The City has constructed significant amounts of self-generated solar for its facilities, achieving 1 MW in October of 2020. MGE has worked with the City to do this including making changes to the downtown distribution network to safely accommodate those facilities.

B. EXPANDED USE OF ELECTRIC VEHICLES/OTHER TRANSPORTATION

• Electric Buses

 Madison Metro and MGE partnered to apply for a federal grant to help fund the purchase of electric buses and associated charging infrastructure for Madison Metro. Three electric buses will be delivered to the City in 2021. MGE and Madison continue to work together to further electrify transit, including fleet expansion and charging infrastructure.

• Bus Rapid Transit

 MGE, the City and Madison Metro have been collaborating on the rollout of Bus Rapid Transit (BRT), a program that will include electric buses.
 Representatives from MGE Electric Operations and Energy Products and Services are providing information on capacity, infrastructure, rate options and potential charging programs.

• <u>City Fleet Electrification</u>

- City applied for and received Environmental Mitigation grant from MGE to replace three existing combustion engine vehicles with electric vehicles in the City fleet. Charging infrastructure was installed by MGE to support this use.
- With support from MGE, the City received a grant from the Wisconsin Office of Energy Innovation to add 20 electric vehicles to the City's fleet in addition to the five-plus electric vehicles already in the City's fleet. MGE provided technical assistance for associated charging infrastructure.
- City of Madison has purchased an electric semi to haul organic waste scheduled for delivery in 2022. MGE will provide a DC fast charger to charge the truck on site.
- MGE provided a DC fast charger for a plug-in hybrid fire truck demonstration project at Fire Station 8.

• Expanding Charging Infrastructure

- MGE and the City continue to work together to increase the EV chargers in City facilities and parking garages. In 2021, MGE installed two Level 2 charging stations at the Wilson Street Garage. MGE currently owns 45 public charging stations, including five DC fast chargers.
- O MGE is building a DC fast charging hub at the corner of E. Washington Ave. and S. Livingston. The hub will feature eight fast charger stalls with some of the most powerful chargers in the Midwest. And, through a partnership with Tesla, the hub also will feature eight Superchargers. The hub is scheduled to open in 2021.

• Electric Vehicle Charging Ordinance

 MGE provided technical expertise to City staff as they researched and implemented the Electric Vehicle Charging ordinance.

Fleet Charging

- MGE is working with the City of Madison Water Department on an EV Fleet Analysis. The analysis will help the City determine if EVs are a good fit based on telematic data.
- MGE now offers an EV Fleet rate to business customers, including the City, and has worked with the City to incorporate it. The new rate provides a reduction in demand charges over a period of time, giving the City time to understand their unique charging behavior and adjust to minimize demand charges.

C. PROMOTE ENERGY EFFICIENCY/SOCIAL EQUITY AND ECONOMIC DEVELOPMENT TOPICS

• Voluntary Benchmarking Ordinance.

- City and MGE worked together, with assistance from Slipstream consulting, to combine City Assessor information with MGE energy usage data to identify commercial business types in Madison that may benefit from energy efficiency enhancements.
- MGE and the City continue to provide support for Sustain Dane programming.

Building Energy Efficiency Policy and Data Sharing

 City is developing an energy benchmarking initiative for commercial buildings. MGE is working with the City to identify methods for customers to easily obtain their own energy data for purposes of the program.

• MGE Energy Efficiency Programs/Partnerships

At the City's request, MGE provided a detailed update concerning some of its work to engage all customers on energy, especially those in underserved or underprivileged communities. This includes MGE's community energy workshops, meeting with customers where they are, to expand programs and energy resources in the community; efforts to expand both shared solar and energy conservation opportunities; and the MGE Smart Thermostat Program, including our work with partners like Focus on Energy, Project Home, the Urban League and Dane County Housing to distribute smart thermostats across the service territory.

D. OTHER CURRENT COLLABORATIVE ACTIVITIES BETWEEN MGE AND CITY

• MGE and City Carbon and Renewable Energy Goals

 The City and MGE continue to discuss and encourage one another in their overall carbon reduction and clean energy goals. Below is a status of each:

City of Madison 100% Renewable Energy/Net Zero Carbon Goal

- The SMC updated its Carbon and Energy goals, leading the City to adopt a 100% Renewable and Net Carbon Zero resolution in 2017.
- A report developed by HGA and the Navigant consulting group and establishing how the City can achieve its 100% renewable energy and Net Zero Carbon goals by 2030 was adopted by the City in March of 2019.
- MGE supported the City's resolution and will work under this Collaboration Agreement to help the City implement specific measures identified in the report that are required to achieve the City's energy and carbon reduction goals.

Progress on MGE Net-Zero by 2050 Goals

- Carbon Reductions. MGE has achieved 30% reduction in carbon emissions since 2005, and expects to achieve a 65% reduction in carbon emissions by 2030 (MGE's Energy 2030 goal was to reduce carbon emissions 40% by 2030).
- Renewable Energy Resources. Since 2015, MGE has announced an estimated \$565 million in clean energy projects, which are expected to increase MGE's owned renewable capacity by more than nine times when completed in 2024.
- Transition away from coal.
 - In February 2021, MGE announced (with other coowners) a plan to retire the coal-fired Columbia
 Energy Center near Portage, Wisconsin early before the end of 2024.
 - In November 2021, MGE announced that it will have no more coal-fired generation in its fleet by 2035.

Updated Memorandum of Understanding for work on common energy goals

 The City and MGE are working to update our existing MOU to guide our partnership to achieve our common energy goals.