

## City of Madison Energy Work Plan

### **Background:**

In spring of 2015, the Common Council directed the Sustainable Madison Committee (SMC) to develop an energy and carbon action plan to establish Madison as a leader on energy innovation, racial and social equity, and environmental health.

### **Purpose:**

The debate over climate change has been over for some time. Local and international scientific authorities have confirmed that a warming world could have dramatic and negative impacts on public health, economic development and provision of City of Madison services to all community members. The City of Madison desires to formulate and implement an energy policy consistent with the Madison Sustainability Plan that aims to reduce fossil-fuel based energy consumption and expand use of renewable energy sources in public and private buildings to ensure a resilient, healthy and economically robust region. This objective is in line with the City's Race Equity and Social Justice Initiative that demands an "equitable allocation of resources" in the community.

### **Process:**

An ad-hoc working group of seven Sustainable Madison Committee members participated in four publically noticed meetings that invited nearly 3 dozen community members to identify and advocate for specific policies, practices and partnerships. SMC members recommend the following Work Plan based on concepts vetted throughout the process.

### **Current Carbon and Energy Goals as outlined in the Madison Sustainability Plan adopted by the city of Madison Common Council in 2011:**

- 80% carbon reduction by 2050
- Obtain 25% of electricity, heating and transportation energy from Clean Energy Sources by 2025
- Reduce overall energy consumption by 50% by 2030 (kWh and therms/sf)

### **Work Plan Recommendations:**

- **Create a working group of the Sustainable Madison Committee that includes other community stakeholders to review the above referenced climate change goals and update if needed.** Advances in science and technology and changes in community sentiment—documented in MGE's ongoing Community Conversations and during numerous SMC meetings—demand a review of objectives in the Madison Sustainability Plan with respect to Energy and Carbon issues. Residents need a clear understanding

of shared, publicly vetted goals. Relevant stakeholders need visible benchmarks and milestones by which to measure progress.

Time-frame: Now  
Lead Parties or partners: SMC, with input from City Staff

- **Create permanent, dedicated staff resources in city government to focus on climate change, greenhouse gas reduction, resilience planning, public health, community engagement and partnership building.** These resources will create internal expertise and capacity to formulate and implement policy to meet City of Madison sustainability goals by:

- Advocating for ways of limiting environmental and financial costs associated with climate change.
- Implementing Madison Sustainability Plan objectives across city departments.
- Partnering with community stakeholders—including local utilities, businesses and other governmental jurisdictions— to identify institutional and community opportunities for financial savings and environmental impact.
- Collaborating closely with Racial Equity Coordinator to ensure innovation and resilience efforts work in tandem with racial equity and social justice objectives.
- Providing a detailed analysis of economic and environmental costs to the entire community associated with waste and carbon emissions from all local community sources, including city operations. Annually measuring and reporting on progress being made toward Madison Sustainability Plan goals and objectives. Reporting on the City's carbon footprint
- Conducting cost/benefit studies to assess viability of city initiatives to utilize city-owned buildings and facilities to generate clean energy for city's own use, including vehicles.

Timeframe: 2017-18 budget cycle  
Lead Parties or Partners: Human Resources Director

- Support regional initiatives to promote the transition to renewable energy with partners including but not limited to the University of Wisconsin, Madison Area Technical College, Dane County, MMSD (sewerage), MMSD (school) and local utilities (MGE and Alliant Energy). to coordinate energy efficiency, renewable energy and GHG reduction efforts, including education and outreach, on region-wide basis.

Timeframe: Now

Lead Parties or Partners: City Staff in partnership with the relevant stakeholders

- Promote energy efficiency and renewable energy programs for City businesses and residents with funding for commercial and residential efficiency improvements including facility enhancements and behavioral interventions.
  - Support and grow local initiatives to promote resource conservation and energy efficiency (e.g. Georgetown University Energy Prize initiative; MPower Madison, etc.)
  - Continue solar energy bulk purchasing program
  - Gather multifamily vacancy data with assistance of local utilities across a broad geographical area (such as Census tract) and integrate with quarterly reporting on building permits and new construction in the same area

Timeframe: Immediate and medium-term  
Lead Parties or Partners: City Staff

- Reduce energy costs to businesses and residences by establishing a city-wide, commercial and residential PACE (Property Assessed Clean Energy) program.

Timeframe: Immediate  
Lead Parties or Partners: SMC in partnership with financial institutions, city staff and Mayor's Office/City Attorney

- Ensure successful implementation of the city benchmarking resolution adopted in 2015.

Timeframe: Immediate  
Lead Parties or Partners: City of Madison, DMI, Chamber of Commerce, Smart Growth Madison

- Develop inventory of City-owned land and property suitable for solar energy development

Timeframe: Medium-Term  
Lead Parties or Partners: City staff

- Increase economic and job development opportunities in the green sector, including city investment in workforce training to boost green build-out (panel installers, energy auditors), expand the M-power program, build on best practices developed through the city's participation in the Georgetown University Energy Prize competition and broaden outreach efforts in keeping with Race and Equity objectives.

Timeframe: Immediate  
Lead Parties or Partners: City of Madison, DMI, Chamber of Commerce, Smart Growth Madison

- Conduct a study of the development and implementation of an internal sustainability fund to serve as a primary funding source to implement the City of Madison Sustainability Plan. The fund could be generated by an internal fee or similar mechanism that would place an internal price on carbon pollution generated by City facilities and operations only. The fund should include evolving targets to improve energy efficiency, increase the purchase and/or generation of renewable energy, improve data collection and reporting, and further align with the City's broader goal of reducing its environmental impact.

Timeframe: Short-term  
Lead Parties: City of Madison

- Solidify cooperative effort with MGE to expand access for city residents to renewable energy and enhance energy efficiency opportunities on the part of MGE customers.
  - Actively participate in MGE community conversations in support of strategies to transition to cheap, clean (carbon-free) and reliable fuels
  - Cooperate on City federal grant efforts in the renewable area
  - Meet with senior representatives of MGE to develop an agreement for ongoing collaborative action on topics related to conservation and renewable energy that may include the following elements:
    - Develop a utility scale solar pilot project (i.e. >1 MW, per IEA definition), along the lines of MGE's proposal in PSCW Docket No. 3270-TE-101 ; in support of this initiative, the City would partner with MGE to make available suitable property and facilities to serve as host of the project
    - Develop a storage device pilot project
    - Develop a plan to upgrade City street-lighting facilities to incorporate LED or other suitable high efficiency lighting facilities
    - Promote the use of electric cars as a means of reducing carbon emissions by installing solar-powered electric vehicle charging stations and utilizing demonstration buses and vehicles throughout the City
    - Cooperate with the city in efforts to promote benchmarking (in both commercial and multi-family units) and PACE, including use of on-bill,

print and online communications, as well as automatic uploading of energy data to Portfolio Manager

- Develop a long term, phased plan to modernize MGE’s distribution grid, with stepped up investment in Advanced Metering Infrastructure technology; voltage controls and “smart inverters”; advanced information, operating and data analytics technology; and other grid enhancements designed to help MGE improve its operational efficiency and responsiveness as a distribution provider and enable customers to better control their own energy use and maximize the value of their investments in home and appliance energy efficiency.
- Develop mutually acceptable, progressive and time-varying rate design alternatives intended, to the extent practicable, to (i) minimize cross-subsidization; (ii) minimize rate discrimination against low use or low income customers; and (iii) incentivize energy efficiency and customer installation of renewable distributed generation. To that end, MGE should provide the City prior notice and meaningful opportunity for input prior to the filing of MGE’s retail rate cases.
- Develop a specific, measurable carbon reduction plan that will meaningfully support the City’s carbon and energy goals. Develop outreach initiatives and innovative retail service models to encourage energy efficiency and clean energy participation throughout the Madison community, with an emphasis on older rental stock and multi-family units.

Timeframe:

Immediate

Lead Parties or Partners

Designated members of SMC energy working group and representatives of Mayor’s Office and MGE