



## Robert M. La Follette School of Public Affairs

UNIVERSITY OF WISCONSIN–MADISON

### Public Affairs Workshop Policy Brief Spring 2015

Prepared for the City of Madison

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#### Why the La Follette School did this study

The 2011 Madison Sustainability Plan sets a target goal of 80 percent reduction in City of Madison greenhouse gas emissions by 2050. Implementation of the plan has not been systematic and available data has had a limited impact on policy decisions. The City of Madison requested a city-level greenhouse gas inventory and research on metrics and policies to inform the implementation of the Madison Sustainability Plan and progress toward the City’s carbon and energy goals.

#### La Follette School recommendation

The La Follette School developed a tracking framework for the City to target policies and assess progress toward the Sustainability Plan’s emission reduction goals. The City of Madison should implement this framework to monitor and communicate progress toward plan goals. By improving how data inform policy through implementation of tracking metrics, the City will be able to define a structured path to achieve the goals of the 2011 Madison Sustainability Plan.

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### Madison City Operations Tracking Framework: A Roadmap to Sustainability

The La Follette School develops a sustainability tracking framework that builds on three collaborations between the City of Madison and the University of Wisconsin–Madison to implement sustainability initiatives. The tracking framework has three components: data collection, tracking metrics, and policy analysis. These components interact in a continuous cycle: data collection informs tracking metrics, tracking metrics inform policy objectives, policy analysis uses evaluative criteria to inform decision-making, and data collection and tracking metrics are then used to evaluate policies and progress.

*Using a Tracking Framework to Provide A Roadmap to Sustainability*

Emissions  
(1,000 tons CO<sub>2</sub> equivalent\*)

#### Section 1 – City of Madison greenhouse gas inventory

The La Follette School uses greenhouse gas inventory software to estimate that City of Madison local government operations emitted approximately the equivalent of 92,000 tons of carbon dioxide in 2014, roughly a 3 percent reduction compared to 2012. Energy use in buildings and facilities was the single largest contributor to city government greenhouse gas emissions.

#### Section 2 – Carbon and energy metrics

As agencies gather data relevant to sustainability goals, the information should be tracked in an ongoing manner through metrics that provide more detailed, actionable information than biannual inventories. The metrics need to be measureable, simple to communicate, and sensitive to changes in city operations. This report develops eight metrics to track the City’s progress on the Sustainability Plan’s carbon and energy goals in transportation, buildings, and public engagement categories. The La Follette School used the 2014 greenhouse gas inventory to analyze three of the eight metrics relating to employee commuting patterns, city vehicle and transit fleet fuel use, and building energy use.

#### Section 3 – Policy criteria and analysis of alternatives

The La Follette School proposes three evaluative criteria to gauge the appropriateness and effectiveness of policies to decrease emissions: jurisdictional influence, community scalability, greenhouse gas abatement potential, and cost-effectiveness. La Follette then applied the evaluative criteria to four example policies: 1) greening the fleet, 2) improving end-of-trip biking infrastructure, and 3) updating building energy standards. The building energy standard upgrade was the most cost-effective policy analyzed. Updated building energy standards would abate approximately 340,000 tons of carbon dioxide equivalent over a 35-year period and achieve net cost savings from reduced building energy use.

