## DEPARTMENT OF PUBLIC WORKS



Environmental Sustainability Division

## memorandum

**TO:** Mayor Laurel Lunt Prussing and Members of the City Council

**FROM:** Scott R. Tess, Environmental Sustainability Manager

**DATE:** October 18, 2012

**SUBJECT:** Climate Action Plan Phase 1 – Response to Public Questions

At the October 15<sup>th</sup> City Council meeting, the council postponed the adoption of the Urbana Climate Action Plan Phase 1 in order to further review questions posed by Mr. Paul Debevec, retired University of Illinois physics professor, during the public comment period. Those questions are addressed below:

- 1. Mr. Debevec expressed concern about the effectiveness of some of the climate actions listed in Section 3.1. The actions listed in Figure 15 in this section "describes one example of the contribution of various actions to Urbana's 2020 emissions reduction target. This example scenario was developed using the ICLEI [Climate and Air Pollution Planning Assistant] CAPPA software." The inclusion of these scenarios in the report is to instruct the stakeholder engagement and policy formulation that is to occur during Phase 1 of the plan. Some of the actions in Figure 15, Section 3.1 will be found to be feasible for the city to implement while others will not. Some of the actions have been implemented while the Climate Action Plan was being formulated including the purchase of Renewable Energy Credits, the implementation of a bicycle master plan, and incentivizing energy-efficient home weatherization.
- 2. Mr. Debevec expressed concern that electric vehicles could contribute more greenhouse gasses than comparable gasoline vehicles dependent on the source of electricity in the specific grid. This possibility is noted in the CAPPA model. The model calculates emissions reduction scenarios based on the fuel mix of Urbana's particular electric grid and therefore accounts for the fact that most of Urbana's electric grid is coal powered.
- 3. Mr. Debevec stated that ethanol fuel should not be considered in any climate action plan. Recommended actions in the Phase 1 plan do not propose actions related to ethanol fuel. Staff will continue to work to evaluate this feedback in future actions as they are planned
- 4. Mr. Debevec asked whether the CAPPA model attributes zero greenhouse gasses to wind energy. After staff spoke with CAPPA representatives, the answer is yes, the current model attributes zero greenhouse gas emissions to renewable energy. To model full life cycle emissions would be exceedingly complex requiring CAPPA administrators to track steel and other construction and fabrication equipment all the way back to their source location for each installation in order to account for transportation and other emissions. Similarly, the model cannot account for the embodied energy of conventional energy installations. An updated *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions* was just

released October 4, 2012 that begins to address the life cycle emissions of renewable installations which will improve the precision of future greenhouse gas modeling performed by the city. The urgency in addressing energy and climate challenges means the city will implement best practices while continuing to improve the precision of the data used to model greenhouse gas emissions.

- 5. Mr. Debevec described a situation in Colorado where additional wind energy capacity led to coal power plants cycling on and off in an inefficient manner. The CAPPA model is updated every couple of years by ICLEI, an organization the city is a member of, to expand the model's complexity and improve its precision. As it is a model that incorporates real world data, averages and estimates of data not precisely known, and simulations of probable scenarios, the model will always have a margin of error. Furthermore, decisions regarding how to operate a region-wide electric grid, how to frame federal renewables policy, or how to design a state renewable portfolio standard are not within the purview of a city climate action plan.
- 6. Mr. Debevec stated that the Climate Action Plan should be sent out for review as academic journal studies do. The Climate Action Plan has been created over the course of four years in public meetings broadcast on TV and open houses. The plan has been available online and in print form at the library. The city has received public comment throughout this process from many individuals.

## Attachments:

The Urbana Climate Action Plan can be downloaded from <a href="www.urbanaillinois.us/climateactionplan">www.urbanaillinois.us/climateactionplan</a>
If you would prefer a paper copy, please contact Aditi Kambuj at (217) 384-2440 or <a href="adkambuj@urbanaillinois.us">adkambuj@urbanaillinois.us</a>.

cc: Sustainability Advisory Commission members