Dane County Council on Climate Change
Office of Energy and Climate Change

Notes from the Third Meeting of the Dane County Council on Climate Change

December 8, 2017, 9:00 am to 12:00 noon
Alliant Energy Center
1919 Alliant Energy Center Way, Madison 53713
Room Mendota 5 & 6

Agenda:

9:00 to 9:20   Welcome, introductions, agenda review and updates, by
                 Keith Reopelle

9:20 to 10:30   Introduction to FACETS model, by Evelyn Wright with
                 Sustainable Energy Economics

10:30 to 10:40: Break

10:40 to 11:15: Presentation on Urban League of Greater Madison's
                  Workforce development program, by Wayne Strong

11:15 to 12:00 Discussion about workforce development, economic
                  impacts more broadly, and the process for teeing up
                  policies/programs

12:00 noon   Adjourn

Council Members in attendance included:

Azar Law – Lauren Azar
City of Madison – Jeanne Hoffman
City of Monona – Brad Bruun
City of Fitchburg – Erika Kluetmeier
City of Sun Prairie – Drake Daily
Dane Co Emergency Management – Charles Tubbs
Public Health Department of Madison and Dane Co – Doug Voegeli
Alliant Energy – Steve Jackson
MGE – Jeff Jaeckels

WPPI – Andy Kellen
IBEW 2304 – Dave Poklinkoski
Greater Madison Chamber of Commerce – Brett Halverson
H&H Energy Services – Chris Beedle
Sun Peak – Chad Sorenson
Krupp General Contractors – Paul Lenhart
Home Savings Bank – Jim Bradley
Dane Co Office of Equity and Inclusion – Wesley Sparkman
Urban League of Greater Madison – Wayne Strong
YWCA of Madison – Libby Tucci
Derr Farms – Jamie Derr
Clean Fuel Partners – Jessica Niekrasz
RENEW Wisconsin – Tyler Huebner
1000 Friends of Wisconsin – Ash Narayanan
Sustain Dane – Stacie Reece
Sierra Club – Elizabeth Katt Reinders
CRANES – Gary Werner
Clean Wisconsin – Mark Redsten
UW Madison, Nelson Institute – Paul Robbins
UW Wisconsin Energy Institute – Gary Radloff

Welcome, introductions, agenda review and updates, by Keith Reopelle
New members include representatives from the City of Sun Prairie and YWCA.

Updates
Exxon came out in opposition to a vote ALEC had scheduled to take on urging EPA to overturn the endangerment finding. This move illustrates the dynamic situation among the players in climate and energy policy.

The Fourth National Climate Assessment Report was released and is available for public comment here through January 31, 2018. The report finds that the Midwest will have the second highest rate of high intensity precipitation events.

The Dane County Council on Climate Change will be utilizing a spreadsheet to evaluate and track each policy, program and project. The spreadsheet was sent out to Council members prior to the meeting. This is not the final version. But, this will be useful to keep a running list of policy and project ideas and prioritize them. We will have a lot more policy and program ideas that we will need to flesh out. This is a blunt tool to evaluate the recommendations and put the various proposals into broad categories. The spreadsheet will be a shared google document.

Presentation FACETS model, by Dr. Evelyn Wright with Sustainable Energy Economics

Introduction

Dr. Wright led a team at EPA where she developed the MARKAL Economic Framework for integrated energy systems modelling. Dr. Wright also worked for NRDC, USAID and The Center for Climate and Energy Solutions.   She is also the author of *Cool Tools for Hot Topics*.

Presentation

FACETS can model future energy use and emissions based on the DCCC policies and programs. This can be a tool for the Council and for communicating with the public. Dane County imports much of its power which will inform the FACETS model.

The FACETS model evaluates resource supplies (type of fuel), power plants, vehicles, (by size and class), energy demands, and vehicle miles traveled (VMT). A major question to consider is where are we are heading without a carbon price (this scenario is also called BAU or business as usual). The costs of natural gas and renewable energy and the lifespan of nuclear power plants are among the most powerful influences in this model. FACETS is an assumptions calculator. It allows understanding of the relationships within the energy system and how the system responds to policy incentives. FACETS identifies the key risks and strategies to address them. The model helps identify the most powerful influences (e.g. the cost of solar panels or cost of oil) and the big risks. The model shows how various prices influence the energy mix. For example, in one scenario when gas prices are low, most new generation comes from gas and coal declines.

Dane County obtains much of its power from MISO Region 2 for all energy not generated within the County. Coal is much more persistent in almost all of the scenarios in this region. The cost swings based on the uncertainty of natural gas prices can cause the energy mix to fluctuate by 20%. Policies limiting fracking could impact pricing and that would be represented in the model.

Dane County Modeling Process

1) Break out Dane County from surrounding model region
- electricity generating capacity
- electricity load
- existing light duty vehicle fleet
- light duty vehicle miles traveled

2)Track and project additional energy consumption and emissions
- residential electricity demand
- commercial electricity demand
- Dane County airport
- natural gas demand
- in county transportation of goods (may be included - to be discussed in the modeling working group)

3) Add Council designed projects, programs and policies for testing

4) Run BAU analysis and measures against regional electricity and light duty vehicle (LDV) fleet scenarios

5) Evaluate and interpret results with Council then revaluate and repeat again

Discussion on Presentation

Q: How will land use and transportation be incorporated into the model?
A: We can include those projections into VMT use/demand.

Q: This model factors cost in as a primary driver, but there are other factors of cost (costs of extreme weather). How are those factored in?
A: The model calculates costs over the whole time horizon - comparing the cost of buying an electric vehicle, the electricity costs, and maintenance costs. The model reflects the full cost of owning and driving a vehicle for its lifetime. We could potentially include social costs of carbon into the model. If you had a damage assessment of climate impacts for Dane County, we could put that into the model.   We will include health impacts and other social costs of climate change in our spreadsheets that evaluate social and climate impacts of each policy/program/project.

Q: What assumptions do you make about the electric vehicle power source?
A: That is based on general energy mix in the County. We will have the Dane County load, all generation in Dane County, and will have an average emissions factor for the regional grid.

Q: Income and access to energy are important factors, are those factored into this model?
A: No. These will have to be evaluated in your other criteria in your spreadsheet. There has been interesting work done in the region looking at the relationships between energy and income at the Center for Earth Energy and Democracy (CEED). We can build on their work.

Q: How are you modeling the retail price of electricity? Does your model predict an increase or decrease in electricity costs? If businesses expect that energy prices will go up - they are more likely to invest in distributed energy (solar).
A: We are looking at wholesale prices not retail.   The model is not a great retail price predictor.

In general, the model does not attempt to respond to price - it actually responds to cost. The various issues about different factors that influence the model can be handled in the

assumptions. If you can incorporate these factors in the model as a cost, then they can be included in the assumptions.

PRESENTATION
Wayne Strong - Urban League of Greater Madison
Workforce and Employment Training Program

The Urban League of Greater Madison's (ULGM) values are human development, dignity and accountability.

The ULGM's Job Services program helps people access job services and case management. The program helps clients with resume, interview prep and support, as well as job training, especially in IT and the construction trades. In addition, the ULGM provides support for fathers in arrears for child support.

The ULGM currently has two locations. The first location is at 2222 S. Park Street adjacent to the Goodman Library. The second location is on Madison's South West Side in an office building. Once the employment center across from Elver Park is completed, the southwest ULGM office will move into that facility.

The ULGM works closely with area businesses including Exact Sciences, Alliant, Dean, American Family and UW Health. One of the recent job training academies focused on healthcare schedulers for UW Health. ULGM is focused on training for construction trades as that industry is expected to grow 16% through 2020. ULGM is always looking at job trends and is looking to build connections in renewable energy.

UGLM provides services for employers including Featured Employer Seminars and retention supports for employees. Employers can get involved by contacting Wayne Strong. Wayne will set up a meeting with ULGM leadership to explore the employer's priorities.

ULGM funding comes from the City of Madison, Dane County, the Department of Workforce Development and other government, business, and non-profit organizations.

Sun Peak has worked with people on parole who were great employees. The employees were so grateful for a second chance, that they did excellent work. ULGM works directly with parole officers to ensure that the employee is working within parole restrictions.

WORKING GROUPS UPDATE

Many of the working groups have met though some haven't met. The Modeling and the Adaptation groups have not yet met though both will meet in the near future.

Starting with the next meeting in late Jan/early Feb, the DCCC will begin to explore policies and programs. At that point, the working groups will start presenting specific policies to be included as part of the climate action plan for Dane County.

DISCUSSION
Student Research Projects

Two student groups are working on climate projects. The first student group is looking at city/county climate action plans with a focus on efforts to track carbon emission reductions and effectiveness of the various plans. The other group is looking at carbon sequestration (agriculture, forestry and other sequestration practices). They will present to the Agriculture, Forestry and Food Working Group. Those project reports will be presented on campus on December 11, 2017 and may be presented to the DCCC at a later date.

Overall Timeline

We anticipate that the Council will receive and review policies and proposals from the working groups from March to June. Modeling might take place from May until the end of this group. This group will not meet after 2018, though the Climate Action Plan production will go into the first quarter of 2019. The task of producing a climate action plan will be a large one.

There is interest in knowing when the working groups are meeting. That will be shared with the DCCC.

Public Engagement

The Public Engagement Work Group is leading public engagement. The goal is to have a draft climate action plan for public comment.

The Wisconsin Energy Institute approached the Dane Co. OECC (Office of Energy and Climate Change) and the Public Engagement Working Group to apply for a Baldwin Grant through the University. The grant could provide funding to create positions for professors and students to help get things done. The funding would range from 4,000 to 120,000 for a three-year grant. The preproposal has already been submitted. Keith will find out in January whether WEI and OECC can submit a full application. The academics funded through this grant might be able to conduct survey work to inform the public engagement working group and help tailor the framing and messaging. There will need to be work around building strong incentives and a good communications effort.

PROPOSALS AND POLICIES

Green Bank
The proposal would establish a pool of money from a variety of sources to provide grants or loans for green programs. There are a number of community and states that have green banks. [The State of NY is trying to help communities start their own green banks.](#) On a related note Dane County passed a [PACE financing program](#) - an opportunity for funding specific projects.

Municipalities
Keith recently presented to the Association of Cities and Villages of Dane County. This group represents 28 communities.   While Madison, Middleton, Monona, Fitchburg and Sun Prairie are represented on the DCCC, the other communities in the County are not formally represented. The DCCC could establish a municipalities working group to ensure that the local governments are engaged. In addition, it would be beneficial to have an assessment of the local government policies and regulations on climate and energy. It may also be useful to think about other policies (transportation, roads, infrastructure, housing) and the resulting impact on energy use and climate change. There is a request to compile a list of such relevant policies.

The meeting was adjourned at 12:00 noon.