Minutes: Town of Watertown Environment & Energy Efficiency Committee, January 14, 2019, 7 p.m., 3rd Floor Conference Room, Town Hall

Minutes

The meeting was opened by chair Meredith Fields at 7:04 p.m. Introductions were made. Attending members and citizens: Ed Lewis (Town Energy Manager), Meredith Fields, Lauri Murphy, Jeanne Trubek, Helen Soussou, David Stokes, Brian Hebeisen, Lissa Gifford, Emma Clement, Steve Steadman, and Andrew Airasian.

7:02 Introductions

7:03 Announcements
- On Tuesday 1/8, Town Council endorsed the "100%" Resolution, and voted to proceed further on the Climate and Energy Master Plan
- Wednesday 1/16, "Envision a Better Building Code" will be given by Metropolitan Area Planning Council and MA Sierra Club, sign-up online via MA Sierra Club website
- School Building Committee meeting 1/23 at 6 P.M. in Council Chambers
- 1/23 and 1/24 public input will be solicited on the Parking Survey at the Library (Watertown Savings Bank room), 5-8 P.M.
- Monday 1/28, at 5 P.M., Daniel M. Kamen will present a lecture "An Energy Plan the Earth Can Live With?" at the Radcliffe Institute for Advanced Study, sign up online
- Monday 1/28 at 7 P.M. there will be a Transportation meeting in the Council Chambers
- 1/15 there will be a 350 Mass meeting at Cambridge Community Housing
- Discussion of a new book soon to be available, "Paying for Pollution" by Prof. Metcalf of Tufts University

7:11 Discussion of Helen Soussou's draft document
- Helen drafted a document entitled "Cause for Hope" (see below) describing local, state, and national trends in incorporating renewable energy sources into the electric grid.
- The idea for the document originated in a Watertown Faces Climate Change (WFCC) meeting, and is intended for publication.

7:19 "We Are Still In" declaration

- Discussion of local support of a Declaration by businesses, local and state governments, and religious institutions in support of the Paris Agreement.
- Unanimously passed a motion to draft a note to the Town Council recommending Watertown become a signatory at 7:21.
- A committee member drafted a brief statement which was approved by the committee for forwarding to Town Council.

7:24 Energy Manager report:

- School Building Committee Sustainability sub-group expected to be finalized at next meeting and schedule their first meeting.
- Participated in another Architect, Utility and Green Design team call for the schools. Becoming more likely that Hosmer and Cunniff may be totally new buildings, allowing for significant upgrade to energy efficiency. Significant discussion revolved around all electric – ground source / air source heat pumps, ultra-efficient envelop. Reviewed Hosmer building placement alternatives to gain maximum solar window.
- Asked to speak about Watertown commercial solar requirement ordinance at a press call with Rep Lewis and Connelly regarding them releasing a bill to require solar deployment on all new homes in Mass.

7:34 Transportation report
- Jeanne presented a summary (see below) of "The Future of Transportation: Lessons from the Governor's Commission." The report can be viewed online.
- This was a public meeting to disseminate the lessons learned from the Governor's commission, convened by Gov. Baker to describe transportation in Mass. in 2040.
- Much discussion focused on the next steps, given that the report itself did not address funding for its recommendations.
- Discussion of regional transportation legislation and what actions it may make possible.

7:50 Watertown Electricity Choice (WEC)
- Watertown's plan is still awaiting DPU (Dept of Public Utilities) approval.
- It's important to have a plan for execution ready to go once final approval is received. We will have approximately one month to perform all the required notifications and public meetings.
- Discussion of default rates, and the fact that it should not exceed the Eversource basic rate.
- Based on recent experience of other towns (Arlington, Newton), we may be able to get a higher renewable percentage for the default rate.

- After DPU approval, a public meeting is required. Ed has already reserved the WSB room at the Library for a potential public meeting if the timing works out. Discussion of having a representative of Newton or Arlington as a guest.
- Request for Ed to invite Peregrine to the next WE3C meeting.

8:13 Property Assessed Clean Energy (PACE)
- Overview and discussion of the PACE program offered by the State to finance energy improvements in commercial/industrial/multifamily buildings.
- An advantage of this program is that it makes investments with a longer payback period more feasible.
- Individual town governments must opt in to this program in order to make it available for projects in the town.
- Jeanne volunteered to be on a Working Group to implement this program in Watertown, and two additional individuals were recommended as members.

8:27 Compost Working Group
- Discussion of a public education event (possibly in conjunction with WEC rollout) to encourage individual as well as business/institutional composting.
- Discussion of the publishing of flyers to encourage and inform residents about composting at home.
- Discussion of other Mass. community composting efforts, such as town of Wellesley and Acton-Boxborough High School.

8:32 Trees Working Group
- Working Group meetings have begun, in coordination with the town Tree Warden and Trees for Watertown.

8:33 Meeting adjourned.

Respectfully submitted,
A. Airasian

HS document

Cause for Hope

Since the October 2018 publication of the UN Intergovernmental Panel on Climate Change's major report and the November 2018 fourth National Climate Assessment (which informs us that we are already well into climate change USA), it has been harder to be hopeful. Taking action and seeing results can be a good antidote for discouragement. Local communities have been doing just that.

Two trends...

Publications (available online) that follow the U.S. energy sector have been noting two trends that dovetail well with community efforts to increase renewables. **First**, the cost of renewable energy is becoming more competitive with gas and is cheaper than coal. Solar production costs have declined steadily since 2010. Improved technology and more efficient use of labor have been factors as well as market conditions. Onshore wind technology is somewhat cheaper than solar and has three times more installations than solar.

Secondly, especially in the last two years, progress has been made in long-awaited battery storage technology and some utilities have begun to include battery storage facilities in their strategic planning and/or alliances. As described in a very recent op-ed in the *Boston Business Journal (by Michael Storch, CEO of Enel X North America), "Solar power could protect Mass businesses this winter,"* our state has begun to encourage corporate participation.

> "A new DOER incentive—the Solar Massachusetts Renewable Target (SMART) -program compensates behind-the-meter solar-power capacity in the state and creates opportunities for commercial and industrial energy users to cost-effectively integrate solar-plus-storage systems. In addition to SMART, Massachusetts became the first state to pass a "Clean Peak Standard," which will create future incentives for solar-plus-storage and increase our use of clean energy during times of high demand.
>
> Recent pricing trends also present a perfect opportunity for the construction of new solar-plus-storage projects. When batteries are charged with renewables, a company can take advantage of a 30 percent federal investment tax credit."

New Achievements in Watertown

Watertown's Town Council became a Commonwealth leader on November 27, 2018 when it passed a solar zone ordinance requiring all new commercial projects of 10,000 sq. ft. or more, all residential buildings of ten units or more, and all parking

garages and facilities to be solar producing. Watertown is the first municipality with such an ordinance. The Council also expanded the silver LEED certifiable requirement for the RMUD (Regional Mixed Use District) to cover all commercial, mixed use, and industrial zones of Watertown. The timing of Watertown's new ordinances fits well with the new DOER incentive described above.

Most recently, on January 8, 2019, the Town Council approved a proposal to develop a Climate and Energy Master Plan for Watertown. That same evening, Town Council adopted a resolution to move municipal buildings to 100% renewable energy and to encourage residents towards doing the same.

Community Choice Aggregation (CCA)—A widespread local option

About 140 Massachusetts towns are now involved with Community Choice Aggregation (CCA) programs. With a CCA, municipalities buy electricity in bulk for residents that receive Basic level service from their local utility. The goal of CCA is to offer longer-term price stability and a chance to buy more renewable energy than the 14% percent that the state requires. [Utilities are required to negotiate with suppliers every six months--for summer rates and winter rates..] CCA programs can lock in a price for one to three years, and, thereby offer more price stability. Towns usually obtain lower prices than the local utility's price, though savings are not guaranteed.

Watertown in Midst of CCA Development

Watertown's CCA effort was initiated by the town-appointed Environment and Energy Efficiency Committee (WE3C) along with Ed Lewis, Watertown's Energy Manager, and approved by the Town Council. The WE3C chose a consulting firm to work with the town on its CCA process. Watertown's proposal has been approved by the DOER and is now in review at the DPU. After DPU approval, the consultants will seek bids from energy suppliers and, in partnership with the WE3C, will introduce the program to consumers. There will be a thirty-day education period. (The letter to Watertown residents describing the program will include the town seal and describe consumer protections as well as opt-out opportunities. It is important to not confuse that letter with solicitations from private companies.)

Good News on CCA From Two Nearby Towns

Arlington (pop. about 45,000), which began a twenty-eight month CCA contract August 1, 2017, has a 100% renewable option that was lower than the Eversource Basic rate in the winter of 2018 and now again in 2019. Arlington CCA rates have been the same since August 2017, while Eversource's rates rise in winter. Arlington's experience shows the stabilizing value of CCA's one to three year

contracts. At least in the winter months, Arlington customers could go up to 100% renewable with CCA and still beat Eversource's winter rate.

Newton, (pop. almost 90,000), is just beginning its first CCA contract. The city chose a Standard rate that costs less than Eversource's Basic (2019 winter) rate even though it includes 60% renewable energy. Compared to earlier CCA contracts, this level of renewables, available at a rate lower than the Eversource Basic price, is remarkable. One factor contributing to this change is the declining price and increased availability of solar and wind energy.

Declining Costs of Solar Production.
The National Renewable Energy Laboratory Q1 2018 report includes a graph showing that the cost of producing utility-scale solar energy has decreased each year from 2010-2017. Hardware has decreased in cost and increased in efficiency, which can lead to less labor costs. 2018 prices for producing solar were more static, somewhat affected by tariffs and their peripheral effects. Yet the long-term trend is for the cost of producing solar to continue to decline as the technology is refined and batteries are more frequently used to moderate load balance.

Utility scale battery storage is in its early stages. Successful early battery storage facilities serving large utilities include one in Southern California (2016) and another in Southern Australia [Hornsdale Power Reserve (2017)]. Others are following. MASS CEC (Clean Energy Center) 2016 *State of Charge* report shows ways Massachusetts is planning for energy storage. Utilities are likely to increasingly refine their grids to accommodate renewables with the help of battery storage for load balance.

Looking Forward Nationwide
"Now the country's largest corporate buyers are meeting their clean energy goals while benefiting their bottom lines and utilities are dramatically revising their integrated resource plans to include more renewables." (Utility Dive, 3/21/18 "Wind and solar costs continue to drop below fossil fuels. What barriers remain for a low-carbon grid?")

Climate Change Support Group
In addition to WE3C, Watertown has a two-year-old grassroots climate change support group, "Watertown Faces Climate Change" (WFCC), which supports activities and programs to help Watertown and Massachusetts respond to climate change problems. To learn more about WFCC, email ????

JT notes

The Future of Transportation: Lessons from the Governor's Commission
A presentation of high points from the Commission Report.
Dec. 19, 2018

Note: this took place on the day that the front page of the Globe was "*In landmark agreement, Mass., eight other states vow to cut transportation emissions*". There was significant discussion of this.

The structure of the meeting was
8:00 – 8:30 Check in, eat, etc
8:30 – 9:30 Welcome, recognition of officials, presentation by Steve Kadish (chair of the commission) on the report and a few words from Ken Kimmel from the Union of Concerned Scientists
9:30 – 10:00 Panel discussion and a few questions

I. Presentation by Steve Kadish and Ken Kimmel on the report.

In January 2018 the Commission on the Future of Transportation was created and charged with Imagining Transportation in 2040. They focused on visualizing possible scenarios in 2040. They are not making predictions but offering guidance. Volume I of the report focuses on choices we have and volume II is background information.

The commission made the following assumptions about the population. Between now and 2040 the population will increase by 600,000 people. The projections show that the proportion of the population under 18 will decrease and the proportion over 65 will increase. Older people will remain in the workforce. Population in eastern and central Massachusetts will increase while population in western Mass and the Cape will decrease. The plan must take into account the diverse needs of the population.

The commission made recommendations in five categories:

1. Modernize existing public transit.
2. Create 21st century infrastructure
3. Reduce greenhousehas emmissions and make infrastructure more able to resist changes due to climate change.
4. Coordinate land use and economic development statewide.
5. Change transportation governance and finance.

Steve read summaries from the report. I have taken the summaries from the website https://www.mass.gov/news/commission-on-the-future-of-transportation-releases-recommendations-aimed-to-move-more-people . There's a concise summary of the event on the Transportation for Massachusetts website: https://www.t4ma.org/lessons_wrapup

Modernize existing state and municipal transit and transportation assets to more effectively and sustainably move more people throughout a growing Commonwealth.

1. Prioritize investment in public transit
2. Transform roadways and travel corridors
3. Better manage traffic congestion

II. Create a 21st century "mobility infrastructure" that will prepare the Commonwealth and its municipalities to capitalize on emerging changes in transportation technology and behavior

4. Establish a Commonwealth Transportation Technology Transformation Initiative
5. Support and accelerate efforts to consume transportation differently
6. Promote a statewide telecommunications infrastructure
7. Develop a strategy to support connected and autonomous vehicles
8. Enable and promote a ubiquitous electric charging (and/or alternative fuel) infrastructure

III. Substantially reduce greenhouse gas (GHG) emissions from transportation sector in order to meet Commonwealth's Global Warming Solutions Act (GWSA) commitments, while also accelerating efforts to make transportation infrastructure resilient to a changing climate

9. Establish a goal that all new cars, light duty trucks, and buses sold in Massachusetts will be electric by 2040
10. Establish a regional, market-based program to reduce transportation sector greenhouse gas (GHG) emissions
11. Make transportation infrastructure resilient to a changing climate
12. Ensure sufficient electric capacity

IV. Coordinate and modernize land use, economic development, housing, and transportation policies and investment in order to support resilient and dynamic regions and communities throughout the Commonwealth

13. Adopt dense, mixed-use, and transit-oriented land use policies
14. Enable Gateway Cities and the regions they anchor to compete for residents and jobs
15. Coordinate the planned reinvention of the MBTA commuter rail system with local, regional, and state land use and economic development strategies
16. Provide better mobility options in rural communities

V. Make changes to current transportation governance and financial structures in order to better position Massachusetts for the transportation system that it needs in the next years and decades

17. Prepare MassDOT and other transportation-related entities to effectively oversee a changing transportation system
18. Develop a fiscally sound and responsible transportation resource plan

The Commission has also proposed establishing an effective way to monitor and measure progress in implementing its recommendations. Members encourage a review of critical benchmarks, and other considerations as determined by the Governor. Commissioners suggest a review independent of the state agencies involved, and transparent to the public.

Ken Kimmel, UCS, was chair of the climate working group. They started with the premise that transportation is the largest source of greenhouse gas emmissions. They had as a goal that by 2040 no internal combustion vehicles would be sold. Ken emphasized that we must make sure this report is ACTED on. If EV's are to replace internal combustion vehicles, there must be charging stations, including in rural areas.

The report was impressive but now the question is implementation. The governor cannot consider the report the end of the process; it is showing how to start.

Shirley Leung (Globe editorial pagae editor)was the moderator for the panel discussion that followed. The participants were
David Narkewicz, Mayor, Northampton
Nick Sifuentes, Executive Director, Tri-State Transportation Campaign (NY, NJ, CT)
Lydia Edwards, City Councilor, Boston
Joseph Sullivan, Mayor, Braintree
Emily Castor Waren, Senior Director of Policy and Public Affairs, Lime

Q1. to the mayors, city councilor: What is your city doing to promote EV's
Sullivan: Braintree (pop 36,000) has 9 city vehicles that are EV's or hybrids. All future vehicles will be EV's. Braintree has 4 charging stations. There is a program "Braintree drives electric" to encourage people to change to EV's and offers rebates.

Edwards: Boston needs more charging stations. We need to make a program that is genuinely equitable and affordable to working people.

Narkewicz: (Northampton was one of the first green communities) (pop 28,000) All new municipal vehicles must be EV's. He is also chair of the Pioneer Vally transportation bus service. They have some electric buses but they need more.

Leung: What would it take to get 100% EV buses.

Narkewicz: MONEY! Also we need an east-west rail system.

Sullivan: people are more aware of the urgency, more willing to pay. We need a federal partnership; try to secure federal funding at all levels.

Edwards: a direct tax is seen as personal. Cap & invest is seen as shared and equitable.

Warren (Lime bikes): we need to give people choices. Make low-carbon mobility (i.e. bikes, scooters) available makes carbon reduction more palatable. These help deal with the "last mile" problem

Sifuentes: Tri-state has been trying to implement congestion pricing since 2007. The funds raised should go to help disadvantaged communities.

There was discussion of whether the new "Cap and Invest" program will provide enough money to implement some of these recommendations.

The summary ran overtime and the event had to end punctually at 10:00 so there was little time for questions or even for the panelists comments. It was an optimistic and energetic event, but the BIG issue is implementation. Is the state going to see the implementation of these recommendations as a top priority.