



SUSTAINABLE ENERGY COMMITTEE

TOWN HALL • 525 WASHINGTON STREET • WELLESLEY, MA 02482-5992

Sustainable Energy Director: Marybeth Martello

SEC@wellesleyma.gov

SEC Analyst: Janet Mosley

jmosley@wellesleyma.gov

Laura Olton, Chair

Susan Morris, Vice Chair

Cindy Mahr

Ellen Korpi

Martha Collins

Fred Bunger

Lise Olney

SEC Project Updates

April 2, 2021

Annual Town Meeting

Marybeth Martello finalized and submitted the SEC's Report to Annual Town Meeting.

On March 17 the Advisory Board considered SEC's ATM Article 24, Motions 1 and 2. Advisory moved consideration of Motion 2 to the following week and voted 8 to 5 in favor of the SEC's proposed update of town-wide greenhouse gas (GHG) emissions goals. Laura Olton and Marybeth prepared a memo to Advisory explaining Motion 2, regarding the SEC's proposed name change to Climate Action Committee. Laura and Marybeth attended the Advisory meeting on March 24 to explain the SEC's name change proposal and answer questions, and Advisory voted 13 to 0 in favor. Marybeth drafted an explanation for the GHG goal update and met with twice with Martha Collins, Mary Gard, Phyllis Theermann, and Roopa Chandrasekaran to plan and begin a process to "socialize" the goal update prior to ATM. ATM video presentations are due on April 14.

Climate Action Plan

- The Climate Action Plan (CAP) consultant interview team included Laura Olton, Fred Bunger, Martha Collins, Janet Mosley and Marybeth Martello. After carefully reviewing proposals, interviewing four firms, and thoroughly checking references the team selected Kim Lundgren Associates (KLA).
- Marybeth has presented an introduction to the CAP process to the following boards: Advisory, Select Board, Natural Resources Commission, Planning, Design Review, Municipal Light, Public Works and School Committee. Marybeth also presented to the Wellesley High School Climate Action Club and is scheduling more presentations.
- On March 19 Marybeth submitted a proposal to the Metropolitan Area Planning Council's (MAPC's) Technical Assistance Program seeking community engagement support for the CAP. Awards will be announced in April.

From Fred Bunger:

- Fred is considering a strategy of Leading by Example using municipal building energy efficiency improvements as a guide.
- Fred developed energy use intensity (EUI) baselines for residential, commercial, and municipal buildings.
- Fred is developing a menu of energy efficiency strategies and electrification opportunities for all types of buildings and has drafted a PowerPoint presentation for the building CAP.
- Fred is reviewing Newton and Hingham's energy/climate coach programs.

Greenhouse Gas Inventory

Janet completed the 2020 GHG inventory with an analysis of results included in the SEC Report to Annual Town Meeting 2021. Janet is also collecting additional data to complete a 2019 GHG inventory using the updated inventory methodology.

Green Communities

Work continues on the following Green Communities-funded projects.

- \$25,128, Exterior LED lighting in municipal parking lots – In Progress
- \$98,500, Interior LED lighting in the High School auditorium and gymnasium - Complete
- \$10,000, Two hybrid police cruisers – Complete
- \$4,292, Administrative assistance to support LED lighting projects

The Wellesley Police Department recently received the two hybrid cruisers that are funded in part through Green Communities. The municipal parking lot LED retrofit should be completed in April. Janet Mosley is working on pulling together materials needed to complete the final reports for these projects once work has concluded.

Janet is also working with departments and Marybeth to line up energy conservation projects for the Green Communities Fall 2021 grant round.

Green Collaborative

A Green Collaborative meeting took place on March 31. Marybeth, Francisco Frias of the MLP, Richard Vito of Suburban HVAC, and Christopher Haringa of Abode addressed air source heat pump benefits, installation, importance to Wellesley's Climate Action Plan, and support and incentives via MLP's Clean Comfort Program.

Mobility

A public forum on the Town's Sustainability Mobility Study will take place at 7pm on April 15.

Rocky Mountain Institute (RMI) Building Electrification Accelerator (BEA)

The Wellesley BEA team held its final meeting. The RMI program check-in meeting was on March 25.

Working Group on Sustainability in Zoning

A working group with representatives from Planning Board, Design Review Board, SEC, and relevant citizens started work on incorporating sustainability elements into Wellesley zoning processes. The group meets weekly on Tuesday evenings. Design Review, Site Plan Review, and PSI processes are being considered. The group is communicating with other Towns on comparable zoning strategies.

Fred is working with Mary Gard, MLP and Abode to understand Wellesley's heat pump permitting process, compare it to processes in other towns, and identify potential barriers to installation.

Municipal Light Plant Update

From MLP Staff:

Voluntary Renewable Energy Program (VREP):

During March, the WMLP staff members of the VREP working group met twice to continue the planning for the Wellesley Electric Customers Accelerated Reduction of Emissions ("WECARE") program rollout and to confirm action items were complete. WMLP staff mapped out a program schedule for the necessary communication to the customers of the WMLP and developed a marketing campaign that will begin by April 1, 2021. WMLP staff members of the working group met with the Customer Service team to educate the staff on the program so they will be able to answer customer inquiries. The group has tested the billing requirements for the program, and is working with MUNIS and IT to ensure appropriate changes to the billing software are completed. The group is in the process of preparing the necessary financial procedures to track funds and expenses associated with the program.

Current Group participants include MLP Board members Jack Stewart and Scott Bender, SEC Chair Laura Olton, and representing the MLP: Don Newell, Joanne Scannell, Terry Connolly, and Francisco Frias.

Electric Vehicles (EV) Program:

The MLP is working with Energy New England (ENE) on the EV Education and Awareness program. The Zero Emission Vehicle (ZEV) Commission meeting was rescheduled and has yet to have a rescheduled date.

Education and Support - New Blog Post – "Affordable Used Car Roundup"

Events- ENE will hold a multi-municipality Drive Electric Earth Day Event on Thu 4/22/21. Due to COVID, the Event will be virtual only via YouTube Live.

Ambassador – ENE is developing an EV Ambassador Working Group by engaging local EV drivers interested in participating in the group. The working group provides a space to source local EV-centered ideas and utilize ambassadors for future EV drivers and events.

Dealerships - ENE is working with Plug-In America who is providing Dealership Training to dealerships throughout the state. ENE is ensuring MLP Drive Electric programs are included in this training. ENE is engaging Wellesley Volkswagen who has started taking orders and doing demo test drives of the new ID.4 all-electric crossover. ENE will test drive the vehicle and meet some of the staff.

The kick-off meeting of the Wellesley EV Action Committee is next Thursday, April 1 at 6 pm

Solar Rebate Program:

The MLP's solar rebate program has been in effect for approximately 21 months, with 25 completed installations. There are nine more in progress. These 34 installations add up to 271.865 kW DC allocation against the 192 kW DC initially approved by the WMLP Board. The Massachusetts DOER has extended the program until June 30, 2021, and the MLP pledged \$50k to be allocated for the Solar Rebate

Program extension. Currently, the “overrun” in rebate dollars stands at \$96,234, of which the WMLP is responsible for half or \$48,117.

Incentive/Rebate Programs:

The MLP’s Appliance Rebate program in FY2021, through March 2021, has processed a total of 213 rebates with \$15,825 paid out.

The Incentive Redesign Working Group (IRWG) met four times during the month of March as they work on the rollout of the added rebate incentive for Air Source Heat Pumps. The MLP entered into an agreement with ABODE Energy Management for a six-month pilot program where ABODE will provide consulting and some administrative services for the program. The working group has developed a strategic marketing campaign that includes the Clean Comfort branding created by ENE. The program will be launched on March 31, 2021, with a press release to the town residents as well as a presentation at the Green Collaborative meeting. The MLP is in partnership with the SEC, and the program is co-sponsored by Sustainable Wellesley and the Wellesley High School Climate Action Club.

The existing Group participants include MLP Board member Ellen Korpi, Sustainable Wellesley member Mary Gard, SEC member Fred Bunker, Wellesley resident Judson Jaffe, and representing the MLP: Joanne Scannell, and Francisco Frias. Phyllis Theermann and Martha Collins contributed significantly to the ASHP campaign.

Home Energy Audits:

MLP has made a contact at ENE that will be handling the Home Energy Audits and EnergyX Home Assessments. Next week MLP staff will have an introductory meeting and will brainstorm what the programs should achieve and how to reach our goals.

Large Scale Solar and & Battery Storage Projects:

Wellesley Sports Center: On March 12, the WMLP Director and the President and CEO of Consolidated Edison Development signed the Purchase Power Agreement and the Interconnection Agreement for the installation of a solar array on the roof of Wellesley Sports Center, located at 900 Worcester Street. The heads of these organizations and the owner of Wellesley Sports Center executed the Assignment and Assumption of Sublease agreement. The engineering plans are in the design stage, and construction will begin in June, with an expected commercial operation date in October 2021.

Municipal Way: RFP responses for the installation of a battery storage system next to Station 41 (building next to the MLP Office) were opened on November 17th, 2020. The WMLP staff analyzed the top four RFP proposals received and will review the analysis with the Board for a final recommendation during the upcoming executive session of the board meeting.

Other Locations: On February 26th, the MLP’s Director and Assistant Director held the third meeting with a representative from the Board of Selectmen, the Town’s Executive Director, and the Facilities Management (FMD) Director. During this meeting, the FMD Director reviewed a draft plan containing the criteria identified to consider a municipal building installation of solar panels. Some additional details are necessary for this draft document before discussing it with other key department heads and committees. Another meeting will take place in April.

Webinar Summaries and Other Sustainability News

From Fred Bunger:

New Buildings Institute (NBI) Getting to Zero: Buildings Case Study Webinar

NBI held its GETTING TO ZERO: BUILDINGS CASE STUDY JAM webinar on March 25, 2021.

- Matt Welker of AIA spoke on the AIA 2030 Commitment including 682 signatories that work toward carbon neutral buildings, developments, and major renovations by 2030.
- Dan Luddy of PAE consulting engineers described a 10 story senior living plaza in Portland, OR designed under Passive House certification with an energy use intensity (EUI) target of 10 kBtu/sq.ft./yr including on site solar. He detailed the envelope, ASHP system, and appliance choices. The 30 year life cycle analysis found a net present value (NPV) \$2.5 million below code.
- Bill McClay of McClay Architects presented a food service project aiming for low EUI. The biggest energy loads were ventilation hoods followed by cooking. They chose variable speed ventilation and all-electric cooking. The building achieved an EUI of 85 versus the average food service EUI of 267 kBtu/sq.ft./yr. With on-site and community solar, they achieved net zero status and positive NPV over 30 years.
- Roger Chang PE from Swarthmore College discussed the college's target of Carbon Neutral Campus by 2035 and specifically a dining and community commons project. The ventilation, radiant floor, and rooftop PV allowed them to achieve an EUI of 83.5 and Living Building Challenge certification.
- Tracy Stewart of CMTA presented on Florida's first Zero Energy School. Neocity Academy was designed for an EUI of 20 versus the national school average EUI of 68. Her talk focused on building energy controls, commissioning, and live data operating systems to maintain the targeted goals.

Link: <https://newbuildings.org/webinar/getting-to-zero-buildings-case-study-jam/>

From Martha Collins:

Boston MPO Transit Working Group March 19 Meeting

Meeting video: <https://youtu.be/FQtUkOKqQBO>

Highlights from the March 19 meeting of the Boston MPO Transit Working Group:

- Upcoming Transportation Improvement Program (TIP) Discussions: On March 25, 2021, the MPO will be deciding upon a draft five-year set of projects and programs to be funded with MPO dollars, and will be considering proposed capital investments from the Massachusetts Department of Transportation (MassDOT), the MBTA, the Cape Ann Transportation Authority, and the MetroWest Regional Transit Authority. On April 8, the MPO will consider a set of transit safety performance targets to include in the TIP. On April 29, the MPO will approve a draft TIP to be released for public review, with expected MPO endorsement on May 27. We invite you to these MPO meetings to learn more and share your thoughts. See the MPO's TIP Development web page for more details about this process, or contact Matt Genova (mgenova@ctps.org).
- Upcoming Unified Planning Work Program (UPWP) Discussions: On March 25 and likely April 8, the MPO's UPWP Committee will review candidate research studies that could be included in the MPO's planning work program for next year. You are welcome to attend these meetings to learn more about these proposed studies and share your thoughts. For more information, visit the MPO's UPWP Development web page or contact Sandy Johnston (sjohnston@ctps.org).

Examples of transit-related studies happening this year include Future of the Curb: Phase

[2](#) and [Access to Central Business Districts: Phase 2](#). To find past MPO studies, visit the MPO's [Recent Publications](#) page.

- Recent MPO Travel Demand Management (TDM) Forum: The MPO and the Metropolitan Area Planning Council hosted the forum [Travel Demand Management in a Post-COVID World](#) on [February 18, 2021](#). MPO staff are planning for a second TDM forum later this calendar year. For more information about these forums, contact Sandy Johnston (sjohnston@ctps.org).
- MPO Regional Transit Service Planning Technical Assistance: The MPO has funding available in its [Regional Transit Service Planning Technical Support](#) to RTAs, municipalities, TMAs, and MAPC subregions.
- MPO staff can help promote best practices and address issues related to route planning, ridership, cost-effectiveness, and other service characteristics. For more information, contact Paul Christner (pchristner@ctps.org).
- Upcoming Transit Chat Series: MPO staff are planning a set of small-group chats about various transit topics to take place between April 5, 2021, and May 21, 2021. Please stay tuned for more details!
- Regional Rail Transformation Update and Upcoming Schedules: During the meeting, the MBTA and Keolis representatives discussed [new commuter rail schedules](#), which will go into effect on April 5, 2021. Additional information is available in these [North](#) and [South](#) commuter rail materials. The MBTA and Keolis are seeking the support of transit providers and other stakeholders to promote these new schedules and journey options. Transit stakeholders can email crmarketing@keoliscs.com for more details or to request additional material. Going forward, the MBTA regional rail team seeks to coordinate with other transit providers and stakeholders on topics such as schedules, fares, and station improvements, and MPO staff will be working with them on ways to facilitate that coordination.
- [MPO Park-and-Ride Data Dashboard](#): At this meeting, Ryan Hicks (rhicks@ctps.org) of MPO staff discussed and demonstrated this new resource, which displays automobile and bicycle parking availability and amenities near MBTA stations, along with 2017–18 data about utilization. This [MPO interactive application](#) was created as part of the MPO's [Congestion Management Process](#). More information about the data supporting this dashboard is available in [this memorandum](#) and in this [recording of the December 17, 2021, MPO Congestion Management Process meeting](#).
- MBTA Fare Transformation Sales Network Virtual Public Meetings: The MBTA is hosting a [series of virtual meetings](#) regarding its network of fare and pass sales locations. The first of these meetings is happening tonight (3/23) at 6:00 PM. More information about this initiative and how to register for these meetings can be found at www.mbta.com/fares/fare-transformation.
- November 12, 2020, Transit Working Group Meeting Summary: If you have any comments on the [draft summary of our November 12, 2020, Transit Working Group meeting](#), we are accepting them through March 26, 2021.

If the Transit Working Group has introduced you to the Boston Region MPO, we encourage you to check out our [Frequently Asked Questions](#) page to learn more about us. Subscribe to our [MPOInfo email](#) list to get regular updates about MPO meetings and activities. You can also subscribe to [other MPO mailing lists](#) and follow us on [Facebook](#), [Instagram](#), [Twitter](#), and [LinkedIn](#).

We expect the next full Transit Working Group meeting will happen in late spring/early summer 2021. In the meantime, if you have any questions about the MPO's Pilot Transit Working Group, please contact me (mscott@ctps.org) or Sandy Johnston (sjohnston@ctps.org).

From Roopa Chandrasekaran

The **Trees & Climate Change in Watertown Symposium** was organized by a couple of groups:

- A volunteer citizen organization called **Trees for Watertown** and
- A town committee of appointed citizens and volunteers called **Watertown Environment and Energy Efficiency Committee (WE3C)**

The symposium was an educational session to raise awareness among the community on the benefits of abundant tree cover and to promote the planting and preservation of shade trees.

The speakers offered insight into the following topics:

- Research by the City of Cambridge on their tree canopy loss and impacts, and the subsequent plans put in place as part of their Healthy Forest -> Healthy City campaign.
- <https://www.cambridgema.gov/-/media/Files/publicworksdepartment/Forestry/healthyforesthealthycity.pdf>
- The need for native plants, tree diversity, and routine care of trees
- What is Watertown doing about it? - <https://resilient.watertown-ma.gov/category/natural-resources#trees>
- Promotional programs:
 - **Back of Sidewalk** program where the city will plant a tree for free in a resident's yard within 20' of the sidewalk.
 - **Teens for Trees**, a summer program run by Trees for Watertown for high school students
<https://tfwteensfortrees.org/>

The goals of the program are -

- Provide meaningful learning and educational opportunities for teens about the importance of urban trees
- Update and maintain Watertown's street tree inventory that started in 2018
 - Tree map created by the youth participating in the program -
<https://www.opentreemap.org/watertownma/map/?z=14/42.3698/-71.1748>
- Care for street trees through pruning and site cleaning
- Educate residents about the importance of urban trees through targeted and general outreach.
- **“Tree plenish” program** - run by Watertown high school students, their goal is to plant ~ 150 tree saplings, which is approximately equal to the number of trees lost to annual paper consumption by the high school
<https://treeplenish.typeform.com/to/mwAJqF3N>

Notes from Healthy Forest -> Healthy City, the City of Cambridge

Since 2009 Cambridge has lost the equivalent of 86 soccer fields (150 acres) of tree canopy from the total of 692 fields. If this trend continues, an additional 107 fields will be gone by 2030. By caring for our forest today, we can reverse this trend.

It will take time to reverse the trend from loss to gain. It is important to both curb loss of existing trees and to plant new trees to create the next generation of canopy. To be resilient in the face of future threats, we must work even harder to maintain our urban forest and we need to plant well-adapted trees today to the conditions of tomorrow.

How to build a healthy forest for a healthy city?

Value # 1 - Equity

Goals: Increase canopy cover where it is currently lacking, particularly in areas with high concentrations of minorities, the elderly, non-English speakers, and those with low incomes

- 25% minimum canopy cover for every neighborhood

Value # 2 - Resiliency

Goals: Enhance canopy cover in the public realm to create “cool corridors” that reduce heat island where people are impacted the most

- 60% canopy cover over sidewalks
- 50% reduction of heat island hotspots
- Species diversity: No more than 10% of a single species, 20% of a genus, and 30% of a family

Value # 3 - Shared Responsibility

Goals: Incentivize each landowner to increase canopy cover — a thriving forest requires mutual care by many parties.

- Increase canopy cover by 10 to 25% across landowner types

No one member of the community can do this alone. There are things each of us can do to help.

- CYCLISTS lock their bike to a rack rather than a tree trunk to protect sensitive bark and extend the lifespan of our trees.
- BUSINESS OWNERS care for the trees on and in front of their property because they know shade and lush greenery attract shoppers and diners.
- HOMEOWNERS preserve and nurture their trees, which benefits everyone by providing shaded sidewalks and backyards and even lowering energy costs.
- VOLUNTEERS participate in company-sponsored tree plantings for public spaces in neighborhoods where canopy is needed most.
- TEACHERS help children learn about the importance of the urban forest, so they grow into the next generation of planters and stewards.
- EVERYONE uses the Commonwealth Connect app (cambridgema.gov/311), helping the City know when trees need attention.

The City of Cambridge is committed to curbing loss and growing canopy. They have a 5 year action plan [2020-2025] to curb tree loss and grow canopy.

- **Curb Loss:**
 - GALVANIZE THE COMMUNITY through an outreach and engagement plan
Publicize the BACK OF SIDEWALK program
 - Update the TREE PROTECTION ORDINANCE
 - Prepare and implement a SOILS MANAGEMENT PLAN Expand DATA COLLECTION on tree health and use an annual report to TRACK PROGRESS
- **Grow Canopy:**
 - PLANT 1,000 STREET TREES per year, focusing on priority areas and streets
 - MAKE SPACE FOR MORE TREES by prioritizing better growing conditions in street redesign
 - Maximize tree planting in existing PARKS, focusing on canopy deficient neighborhoods
 - Establish a TREE TRUST to support planting on private property
 - REFORM ZONING tools and revise Article 19 to encourage more trees in new projects Leverage planning review to encourage new public open spaces
 - INSTITUTIONALIZE TREE PLANTING PRIORITIES in City Departments by forming an interagency resiliency group