



SUSTAINABLE ENERGY COMMITTEE

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SEC Project Updates

May 7, 2021

Annual Town Meeting

Work continued throughout April to develop support across the town for the SEC's Annual Town Meeting (ATM) Article 24, Motion 1 to update the town's Greenhouse Gas (GHG) reduction goals and Motion 2 to change the SEC's name to Climate Action Committee.

- Phyllis Theermann, Mary Gard, Martha Collins, Roopa Chandrasekaran, and Ellen Korpi conducted critical community outreach to inform residents and gain support for Article 24.
- Marybeth Martello presented at the League of Women Voters pre-ATM meeting on April 15.
- Marybeth created video presentations and statements for ATM, with substantial support from Laura Olton and Martha and with helpful input from Fred Bungler and Lise Olney.
- Martha developed a question-and-answer document to which many volunteers and SEC members contributed.

On May 4, Town Meeting approved Article 24, Motion 1 to update GHG reduction goals (87% voted in favor) and Motion 2 to change the SEC's name to Climate Action Committee and make other wording change to Bylaw, Article 12 (93% voted in favor).

Climate Action Plan

- Initial meeting/scoping call with Marybeth, Janet, Laura, and the Kim Lundgren Associates (KLA) team on April 8.
- Meeting with KLA, SEC staff, and Working Group (WG) leads on April 14
- Bi-weekly check in meeting with KLA on April 28
- 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, School Committee and Wellesley Housing Authority. Marybeth also presented to the Wellesley High School Climate Action Club and is scheduling more presentations.

From Fred Bunger:

- Fred and Marybeth met with Facilities Management (FMD) on April 21 to propose a “Lead by Example” program of planned zero net energy upgrades to municipal buildings to meet CAP goals.
- Fred is developing a menu of energy efficiency strategies and electrification opportunities for all types of buildings and continues to work on a PowerPoint presentation for the building CAP.

Greenhouse Gas Inventory

Janet Mosley is working on completing a 2019 GHG inventory using the updated inventory methodology.

Green Communities

The work on the following 2020 Green Communities-funded projects is now complete.

- \$25,128, Exterior LED lighting in municipal parking lots – Complete
- \$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 municipal parking lot LED retrofit was completed in mid-April. Final invoices should be processed in the coming weeks. Janet is gathering all the final documents needed and writing the final reports for these projects to submit to DOER.

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

3R Working Group

From Sue Morris:

Applications for new RDF permits were up in April to approximately 100 permit applications. The numbers had been closer to 60 in February and March.

Recycling volume has increased more than 10% in 2021 partly due to increased online purchases and subsequent increased cardboard boxes. We have also run marketing campaigns to promote the recycling of cardboard and newspapers as they are high value recyclables. We are continuing to run these promotions in hopes of increasing awareness and volume further. The bailer is still out of order so there will be a slight slowdown due to that.

The Take it or Leave it area is opening for the season on May 6. It will be open Thursdays for drop-off, Fridays for taking items, and Saturday for both drop off and pick up. The hope is that this hybrid structure will alleviate the problems last year when drop off was done one week and pick up the next, causing reusables to be there for days and subjected to rain if they were not in the covered area. This will hopefully be more efficient and lead to less items that end up in the landfill.

Work on the 50th Anniversary of Recycling is continuing with September being the current plan for a celebration at the RDF. An intern from Sustainable Wellesley is going to help with the video for that when she finishes her college semester and returns to Wellesley for the summer.

We are planning a clean-up of the RDF grounds with a WHS group of students as soon as we can find a date that works. The RDF has been doing some clean-up, new signage, mulching, etc. to improve the look of the facility.

Jamie has been researching options for recycling solar panels. This was a recent topic at Town Meeting. There is a company that does this domestically that Jamie has spoken to and hopes to contract with. This would involve shipping solar panels to their NY receiving center.

Gas Leaks Update

From Lise Olney:

Geothermal pilot program proposed by National Grid

The Gas Leaks Allies are providing comments on this rate case (DPU Docket 21-24: Geothermal District Energy Demonstration Program), and the public hearing is on May 12. Features of the proposal include:

- Replaces leak-prone pipe, also may provide an alternative to gas where access to gas is limited
- Will switch out all gas appliances to electric in the pilot area
- Pledge to focus on low income and EJ communities (no specifics)
- Cost of \$112 per month for 2 years (not clear what cost will be to households after that)
- [National Grid geothermal pilot fact sheet](#)

Legislation

The Gas Leaks Allies have been working on three priority bills for this legislative session and are asking for municipal support for these bills. Links to the fact sheets are included below.

- An Act Relative to Eliminating Gas Leaks ([SD.2188](#) / [HD.3552](#))
 - Filed by Senator Finegold & Reps. Ehrlich and Minicucci
 - Focuses on improving safety in the gas distribution system to prevent future catastrophes such as occurred in the Merrimack Valley in 2018, as well as strengthening existing requirements to eliminate leaks of methane gas.
 - [Eliminating Gas Leaks fact sheet](#)
- An Act Relative to the Future of Heat in the Commonwealth ([SD. 2340](#) / [HD.3472](#))
 - Filed by Senator Cynthia Creem & Rep. Lori Ehrlich
 - Provides a strategy for gas companies to transition off gas as the primary source of heating our homes and businesses.
 - Uses incentives and a financing mechanism for gas companies to justly and equitably transition to renewable thermal infrastructure instead of continuing to invest in gas infrastructure.
 - [Future of Heat fact sheet.](#)
- An Act Establishing the Municipal Reforestation Program ([HD.3032](#) / [SD.1923](#))
 - Filed by Senator Cynthia Creem & Rep. Lori Ehrlich
 - Provides for an expansive urban tree canopy cover to mitigate the adverse effects of climate change such as heat islands and air pollution
 - Requires that each municipality in the Commonwealth have a municipal reforestation plan that the Commonwealth will finance and support with technical assistance, prioritizing environmental justice communities.
 - [Municipal Reforestation Program fact sheet.](#)

Mobility

From Martha Collins:

Sustainable Mobility Plan

Colette Aufranc, Select Board member, led a discussion soliciting feedback on the public forum on the Sustainable Mobility Plan. Feedback included: concerns regarding using the qualitative and non-representative responses to the series of ten awareness-building surveys to shape direction for mobility in Wellesley; interest in seeing the surveys shared as broadly as possible, including to the Recreation and, if willing, Sustainable Wellesley email distribution lists; concerns that the questions asked and possible responses did not cover all use/experience cases, and an interest in seeing an open response box included so respondents can provide feedback; a recommendation to include context-setting information at the beginning of the survey so potential respondents understand that this is part of a Sustainable Mobility Plan. It was acknowledged that these surveys were not intended to be statistically significant - more as an awareness and educational tool.

Safe Routes to Schools

Colette Aufranc connected Marybeth Martello with Central Council leadership to promote and discuss the Climate Action Plan and what actions parents could do to support that.

Shared Streets Grants

The next round of Shared Streets grant opportunities has been announced with a focus on safety. The application deadline is Friday, May 21. Award recipient municipalities will be notified June 25. Funding amounts: Cities and towns: \$5,000 to \$200,000; Better Bus projects: Up to \$500,000. The maximum amount is lower than previous iterations of this grant. Possible projects discussed in the mobility committee included Complete Streets projects with particular safety concerns for students, such as a crosswalk at Peck and Seaver Street, and a crossing light at the Fuller Brook path at State Street parking lot.

<https://www.mass.gov/shared-streets-and-spaces-grant-program>

Grove Street, Walnut Street, Bacon Street, Route 135 projects

Meghan Jop provided an update on projects under way at Grove and Walnut Streets. The Grove Street project was approved on Monday, May 3, 2021, at ATM. Dave Hickey will provide an update to the Mobility Committee at the May meeting.

The Bacon Street and bridge project is underway. Neighbors have complained about the noise associated with the evening work, so more of the work will take place during the day, but this also means that road closures will last a bit longer during the day. Next summer we hope the work on the signalization of that intersection can take place (funded through the transportation bond bill). Meghan noted the town is working on a Transportation Improvement Plan (TIP) funding application for a bike/ped shared use path along route 135 through Natick (more challenging on the Natick side as there are many more driveways). The TIP is a 5-year funding plan for major capital projects. Catherine Johnson noted the project was at approximately 25% design and soon would be ready for public comment. Scott Showstead noted more meetings need to take place with MA DOT prior to their public process.

MWRTA , Microtransit

Colette provided an update on the ride-hailing Catch service provided by the MWRTA, and ridership is slowly but surely increasing. Martha asked if Catherine Mirick or other participants in the Central Council of PTOs could promote the service to middle and high school students.

Martha forwarded information on a Friday, May 7, 2021, at 10 AM about the MPO-sponsored small working group chat on microtransit. [Register here](#). This hour-long chat will focus specifically on microtransit in the Boston region and around the Commonwealth. Interested in incorporating on-demand transit into your service? Want to share or hear about successes and lessons learned about microtransit? Join other providers to share your experience about launching or operating microtransit programs and to talk about needs, issues, and ideas in the microtransit space. This session is also a great opportunity to connect with other people working on microtransit. Target audience: Transit providers, municipalities, analysts researching microtransit.

Colette Aufranc noted the MWRTA is currently not charging fares and is looking for suggestions for fare implementation where transit dependent riders can be efficiently and effectively subsidized. Please send any suggestions to Colette Aufranc.

There is a new rail bus connection from Wellesley Farms to Newton Highlands during commute hours. Wellesley High School drop off traffic was discussed briefly; the new traffic flow appears to be very successful. A suggestion was made to consider making the changes in flow, including no left turn into WHS from Rice Street, permanent.

EV chargers in Wellesley

Martha had raised the idea of EV level 3 chargers or Tesla EV superchargers on route 9 both westbound (at DPW facility) and eastbound (900 Worcester Street.) This would demonstrate that Wellesley supports EVs and could represent a future revenue opportunity for the town as EV charging increases in demand. Today, Tesla absorbs all costs of installing EV superchargers and the electricity costs, which Tesla sells and earns revenue on. Today property leases may be for \$0, but over time they may be renegotiated to the town's benefit as demand increases. There was an in-depth discussion of other chargers in Wellesley and what the town's overall strategy should be. Jack Pilecki indicated an interest in touching base with Haynes management. Discussion focused on the need for EV charging to be available, but most importantly to provide charging opportunities at full-time places of work or at places where people store their cars for overnight charging. Martha re-shared federal and state grant opportunities for EV chargers at municipal, multi-family and other properties to Chief Pilecki.

Sustainable Zoning Working Group

From Fred Bunger:

After six weekly meetings, the Sustainable Zoning Team reached a tentative consensus to focus on three potential changes to the zoning bylaws, continuing to research precedents while producing preliminary draft redlines for initial review by key reviewers during the month of May:

1. Add sustainability as a Design Review criteria and revise the design review guidelines accordingly;
2. Add emissions (energy quantity and type) as a Project of Significant Impact review criteria and modify the Municipal Systems Impact Analysis requirements accordingly;
3. Add proposed site emissions (energy quantity and type) as a Site Plan review criteria; compare this forecast to three benchmarks -- existing site emissions, Municipal Sustainable Building Guidelines, and Energy Star / New Buildings Institute performance targets for various building types and climate zones.

Yard Regulations and noise recommendations are also being considered to remove barriers to heat pumps. In support of this, Fred independently contacted several HVAC installers to better understand Wellesley heat pump permitting process versus other local towns. All permits for heat pump installations require an engineer-certified plot plan, not just in the case where the installation does not meet specifications in Yard Regulations banning any “noise producing equipment” within required setback areas. Requiring the certified plot plan adds cost and is a barrier to heat pump installation.

A member from the Historical Commission recently joined the team. The possibility of adding an additional member from the Zoning Board of Appeals is under discussion.

Regional Residential Electrification Group

From Marybeth

On April 7 Marybeth attended the first meeting of a regional group focused on encouraging and facilitating residential electrification. The team includes representation from Natick, Arlington, Acton, Weston, Sherborn, and more. Brooks Winner of MAPC and Jillian Wilson-Martin led the meeting.

This project will entail a regional procurement process to establish a preferred list of vendors for weatherization, heat pumps and other multi-benefit decarb options (could include residential EV charging stations). The focus is primarily residential, but they also discussed including small business and municipal. They want to develop a vendor list that is flexible, accommodates new vendors as they emerge and allows for removal of any vendors that are not proving satisfactory. Everyone agreed there needs to be accountability and a way of providing feedback on vendor performance. There is interest in vendor education, resident outreach, one-on-one coaching, and more. Group members are also aware of the Wellesley Municipal Light Plant’s CleanComfort Program and may invite Abode to the next meeting. MAPC and Natick will plan regular meetings to check in as the process unfolds.

MetroWest Building Energy Use Disclosure

From Fred Bunger:

Fred joined the Metrowest Building Energy Use Disclosure study team on April 15 with representatives from Natick, Ashland, and Westborough. The intent is to investigate how to implement a building energy use disclosure policy for existing building stock. Existing building energy use is a major hurdle to achieving climate goals for the towns. Building energy or carbon emission disclosure, reporting and targeted improvement policies are in progress for commercial properties in Washington, DC, NYC, Boston and other municipalities around the world. Existing residential stock is a large part of the 4 towns’ carbon emissions, so a strategy for residential building energy disclosure is also needed. Residential energy disclosure policies are working in Portland, OR, Berkeley CA and Boulder CO. Fred volunteered to investigate best methods of home energy rating by the next monthly meeting.

Municipal Light Plant Update

The MLP board meeting in April was delayed due to Town Meeting. MLP updates will be circulated when they are available.

Webinar Summaries and Other Sustainability News

From Fred Bunger:

The US Department of Energy Better Buildings Initiative Webinar

The US DOE Better Buildings Initiative sponsored the “How to Make Your Data Center Better: Stories from the Field” webinar on April 6.

- Rachel Shepherd of DOE reported on a pilot program with 21 partners targeting 25% reduction in data center energy use over 5 years. The program returned a 36% energy reduction showing that data center improvements can reduce energy between 20 to 40%.
- Hannah Stratton of Lawrence Berkeley National Labs (LBNL) described the LBNL Accelerator Toolkit for improving Data Center energy use. This would be a useful tool to assess the opportunity to reduce energy use in the Town’s data center. Data Center Accelerator Toolkit: <https://betterbuildingsolutioncenter.energy.gov/data-center-toolkit>
- David Guislie of Maryland Energy Administration talked about the MD state grants for improving data center energy efficiency, providing 50% of funding up to \$200,000. Fourteen projects have been funded. Projects included: chiller upgrades, variable speed fans, air flow improvements, and lighting. The biggest opportunities seem to be in controlling temperature and humidity, variable speed fans, decommissioning unused servers, and lighting.

Webinar link: <https://betterbuildingsolutioncenter.energy.gov/webinars/how-make-your-data-center-better-stories-field>

The Massachusetts Climate Action Network (MCAN) and the Boston Society for Architecture (BSA) - Financing Net Zero: Affordable Housing is a Climate Solution: Webinar #3

MCAN and BSA held their third webinar in a four-part series on net zero construction for affordable housing and commercial buildings on April 13.

- Brenda Pike, Climate Advisor for the City of Boston’s Environment Department, discussed how Boston is using state and city funds to help make it possible for property owners to make energy upgrades. Property Assessed Clean Energy (PACE) for commercial buildings is a new mechanism to finance energy improvements on existing commercial and industrial properties in Massachusetts. In addition, the new Boston tax-exempt lease program (TELP) is enabling non-profits to install energy saving measures with no up-front costs.
- Travis Anderson, the Director of Innovative Design at [PlaceTailor](#), talked about his on-the-ground experience with designing and building affordable and sustainable housing. He was the lead consultant for Boston’s Department of Neighborhood Development as they developed net zero standards for affordable housing and built the City’s first multi-family passive house project.

New Buildings Institute (NBI) Industry Titans Roundtable - Getting to Zero in the Building Sector by 2030 Webinar

On Earth Day, April 22, the New Buildings Institute (nbi) conducted a roundtable on getting to zero. Zero energy and carbon neutral pledges from leading building industry organizations are accelerating the construction community toward zero. US Green Building Council, ASHRAE, Urban Land Institute, World Business Council for Sustainable Development, and other industry titans have committed to progressing codes and policies. They are promoting the benefits of net zero buildings and are providing their members with advanced education and design guidance for delivering a clean energy future. There is ample evidence that buildings can get to net zero new construction by 2030 cost-effectively if we plan

ahead and collaborate across the real estate value chain. US President Biden's announcement of getting a 50% reduction in greenhouse gases by 2030 was fresh in all the attendees' minds.

- Ralph DiNola of nbi said buildings are 40% of world-wide GHG emissions and 60 to 80% of city emissions. To reach zero he noted the 5 foundations of zero carbon building policy: energy efficiency, renewable energy, grid integration+storage+EV, building electrification, and life cycle impacts. He also referenced a Decarbonization Overlay Code prepared by nbi to help guide policy: <https://newbuildings.org/resource/building-decarbonization-code/>
- Sarah Zaleski of DOE Buildings Technology mentioned the DOE stressing the equity and jobs aspect of greening the building stock with the advanced building construction initiative. She noted President Biden's goal of weatherizing more than a million homes.
- Dru Crawley of American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE), the primary code developers for commercial construction spoke about the ASHRAE zero energy design guides and a standard way of measuring Zero Net Energy and Zero Net Carbon which is in development: https://www.techstreet.com/ashrae/standards/advanced-energy-design-guide-for-k-12-school-buildings-achieving-zero-energy?gateway_code=ashrae&product_id=2004569 and BSR/ASHRAE Standard 228P *Proposed Standard Method of Evaluating Zero Net Energy and Zero Net Carbon Building Performance*. He mentioned that the standards committee is realizing they must go beyond cost and include carbon in developing standards.
- Martha Schantz of the Urban Land Institute, a 45,000 global member group of realtors, developers and building owners said many members have adopted 50% reduction in 2030 and ZNE by 2050 goals. The financial case for ZNE is there. Investors, lenders and tenants all benefit from having healthier, more resilient and lower operating cost buildings. However, the building industry is slow to change, so all the stakeholders, tenants, lenders, investors and owners need to ask for ZNE design.
- Liz Beardsley of the US Green Buildings Council mentioned the work on LEED Zero: <https://www.usgbc.org/programs/leed-zero>. She noted the calculation of life cycle costs for net zero buildings averages a 5 year payback. If real estate is serious about making a difference they need to stop focusing on first cost and make the life cycle cost calculation as well as take into account the carbon cost.
- Scott Tew of Trane noted that change occurs slowly without government signals. Biden's speech on Earth Day is the right signal. He spoke on capability of heat pumps to serve all building needs and meet decarbonization goals. Existing buildings are the biggest opportunity for energy improvement. Heat pumps offer 400% higher energy efficiency than gas.

Webinar link: <https://newbuildings.org/webinar/industry-titans-roundtable-getting-to-zero-in-the-building-sector-by-2030/>