



ENERGY & CLIMATE COMMITTEE MEETING AGENDA

Wednesday, July 7, 2021, 8:00 AM

City Hall, Second Floor Council Chambers

TO JOIN THE MEETING:

The public may join the meeting online or at City Hall in the **2nd Floor Council Chambers**. To join the meeting online, please visit www.zoom.us/join or call (888) 475-4499 (toll-free) and enter the Meeting ID: **860 6322 7039**. If you encounter any issues accessing this meeting online, please call 603-209-4697 during the meeting.

Members:

Peter Hansel, Chair
Cary Gaunt, Vice Chair
Ken Dooley
Councilor Raleigh Ormerod
Jake Pipp
Jude Nuru
Paul Roth
Zach Luse
Suzanne Butcher

Bryan Lake
Andrew Dey
Clair Oursler, Alternate
Hillary Ballantine, Alternate

Staff:

Rhett Lamb, ACM/Community Development
Director & Mari Brunner, Planner

1. Call to Order and Roll Call
2. Approval of Minutes – June 2, 2021 Meeting
3. Update from UNH Sustainability Fellow: Municipal Building Benchmarking Project
4. Energy Plan Work Group Report-outs
 - a. Weatherization
 - b. Home Energy Labeling
 - c. Electric Vehicles
 - d. Community Solar
5. Community Power Program
6. Legislative Updates
7. New Business
8. Next Meeting: Wednesday, August 4, 2021
9. Adjourn

Link to ECC Google Folder: <https://drive.google.com/drive/folders/1O1WIR0fADTNijRt13v3DU7k2FwxXDcGs?usp=sharing>

ENERGY & CLIMATE COMMITTEE MEETING MINUTES

Wednesday, June 2, 2021

8:00 AM

City Hall, 2nd Floor Council Chambers

Members Present:

Peter Hansel, Chair
Councilor Raleigh Ormerod
Jake Pipp (Zoom)
Jude Nuru (Zoom)
Zach Luse
Suzanne Butcher (Zoom)
Bryan Lake
Andrew Dey
Clair Oursler, Alternate

Members not present:

Cary Gaunt, Vice Chair
Ken Dooley
Paul Roth

Staff Present:

Mari Brunner, Planner

Chair Hansel called the meeting to order at 8:00 AM.

1. Roll Call

Roll call was conducted. Jake Pipp, Jude Nuru, and Suzanne Butcher reported that they were participating in the meeting remotely using the Zoom online meeting platform. Chair Hansel noted that a quorum of the board was present in the room, with Clair Oursler participating as a regular voting member for this meeting.

2. Approval of Minutes – May 5, 2021 Meeting

Mr. Ormerod moved to accept the May 5, 2021 minutes with one revision, Mr. Luse seconded and the motion was approved by unanimous vote.

Revision as follows:

Page 4 of 7, second paragraph, fifth line, please change “Dr. Dey” to “Mr. Dey.”

3. Energy Plan Work Group Report-outs

- a. Weatherization- Mr. Luse stated that the weatherization group explored 4-5 topics to potentially pursue. One topic pertained to promoting NHSaves programs, for example, a marketing push for a “Main Street Audit Blitz” and weatherization efforts on the commercial side. They also talked about doing a webinar with CDFR and other local partners to explain options that are available for weatherization assistance and financing. He stated that they also talked about low income weatherization efforts through Southwestern Community Services (SCS) because they have a big backlog.

Mr. Luse continued, saying that the group discussed whether they should broaden their focus beyond weatherization with the Main Street Blitz idea and they decided they would have the most impact with small business given the limited resources of the group. In addition, they decided to explore ways in which they can support SCS in shrinking down their backlog and supporting more low income residents with weatherization to broaden their impacts in the community. Mr. Luse stated that much of the backlog is due to a lack of auditors so they aim to have a conversation about remedying the lack of staff with NH Saves. He said there are many challenges there but their main focus will be to move forward with the Main Street Blitz idea that Eversource proposed, and possibly doing a webinar in conjunction as a marketing effort.

Mr. Luse explained what the “Main Street Blitz” idea would entail. The idea is to have a concentrated effort to get as many commercial energy audits done as possible over a one or two week time period. This will help drum up business and make it more worthwhile for contractors to come out to our area of the state. He stated that Eversource will help with marketing efforts to reach out to small businesses ahead of time, and the group will need to get volunteers to organize the event and advertise before Eversource comes in with their contractors. During the “audit blitz,” Eversource’s contractors will visit door to door and perform some activities, for example, switching out light bulbs, and setting up appointments for further work. He said the lighting contractor does the auditing and the work and bills Eversource directly. There is a second contractor that looks at refrigeration and motors specifically. Mr. Luse said it opens the door to talk to business owners and sort out landlords and tenants; however, the weatherization piece is a bit harder because Eversource does not provide weatherization work unless the primary heating source is electric and most businesses in downtown Keene do not have electric heat.

Ms. Brunner noted that she spoke to Kristin Bahny, Frank Melanson, and Gordon Tuttle from Eversource about the commercial audit blitz idea. Ms. Bahny runs Eversource’s commercial NHSaves programs, whereas Mr. Melanson and Mr. Tuttle work on the residential side. Mr. Melanson stated that Eversource can include weatherization through the residential side as part of the commercial audit blitz because there are mixed-use buildings with residential units. This would mostly include information-sharing and would be done on a case-by-case basis because there are various different thresholds that determine which incentives/rebates apply would apply in different situations (i.e. number of residential units, type of building, ownership structure, etc.). Ms. Bahny said that they can also bring in Liberty Utilities as part of this audit blitz. Liberty provides heating to buildings in Keene that are on their piped propane system (they also provide a limited amount of natural gas to the Monadnock Marketplace), so any buildings that use that utility can participate in weatherization incentives through NHSaves.

Chair Hansel asked if they are required to focus on Main Street only and Mr. Luse replied that they can determine what area they want to focus on; however, it might be more effective to focus on a smaller subset of the community first to avoid spreading resources too thin. Chair Hansel added that if they could acquire the customer list for the whole community they can then focus on which areas they want; however, the list would be a valuable piece of information. He shared that when Filtrine went through the audits they had salespeople visiting them; he asked if the volunteers would perform a similar task. Mr. Luse agreed that they would explain the program and provide and organize the events, however, the two vendors would then come in and perform a similar sales process as Chair Hansel described. Chair Hansel noted that they may have a problem with technical and labor availability as contractors are having a hard time finding people to work for them. He said as far as NHSaves goes, they require certification to do the work and there are not many certified people in the area, so that challenge will need to be addressed as well.

Ms. Jones asked if it would be worth talking to the Career Center at Keene High School (KHS) and Keene State College (KSC) about developing certification programs to bring certified people into the community. Mr. Ormerod stated that they also have a community education department that organizes internships that are available to people ages 18-21.

Ms. Brunner asked if the full committee is in favor of this weatherization program, as Eversource emphasized that it is important that the City get on board as well as it can make these actions more legitimate. For example, when they send letters to businesses it helps to have it look like it is coming from the City so that businesses don't just assume it is junk mail and throw it away. She said the committee appears to be in favor so she can discuss the idea with the City's chain of command and ensure that the City is on board. Chair Hansel asked for a show of hands of committee members for asking the City for endorsement for the partnership between the City and Eversource and the Main Street Blitz. Members raised their hands showing consensus.

- b. Home Energy Labeling- Mr. Dey stated that the home energy labeling group made some progress since their last meeting and discussed focusing on a limited pilot program for home energy labeling to show proof of concept. For example, they could target small rentals or the home sales market by working with realtors. He said Ms. Brunner helped start a list of small and large landlords and realtors in Keene so they are referencing that list to generate questions to ask of those groups as well as using talking points from Northeast Energy Efficiency Partnerships (NEEP) about home energy labeling systems. He stated that their last meeting was focused on the home sales and realtors as that might be an easier lift as opposed to doing a pilot program with small rentals. However, they may not have arrived at a final decision. He said they feel they can use more guidance from NEEP so Ms. Brunner arranged for NEEP

to be present at the next working group meeting so they can pick their brains about getting a pilot program off the ground.

Mr. Dey stated that overall they are looking to lay a successful groundwork for a pilot program. He noted that they are also looking to ensure that we are using a coordinated approach to make sure the same groups are not receiving information from other groups within ECC. Chair Hansel added that there is a real estate boom in Keene right now, so they may want to take advantage of some of that activity. He suggested that they speak to realtors on how to promote this sort of a program as they are interfacing with both sellers and buyers, and if they began a dialogue about home energy and efficiency in general that might be a boost to the cause. He stated that it may be good to begin a relationship with realtors to receive feedback. Mr. Dey agreed and said the list is a starting point for engaging realtors about the program and soliciting feedback and perhaps creating some champions within the real estate community to both mediate and share information to others.

Ms. Brunner stated that Mr. Metell attended the last home energy labeling work group meeting and after that meeting, he did some research and found out that the Montpelier labeling program is up and running and the public can use their online home energy profile tool for free. She said Montpelier's ordinance passed and is currently voluntary. Starting July 1 it is technically mandatory; however, the enforcement portion of the ordinance will not go into effect until July 1, 2022. She said if anyone is interested in testing out the home energy profile tool on their home, you can search homeowner energy labeling, Montpelier, Vermont. He said she used the Vermont Home Energy Profile tool on her own home and got very accurate results. MS. Bruner stated that Montpelier is using a system that NEEP helped them develop; however, she performed the labeling on her own home in less than ten minutes which was very encouraging.

Chair Hansel asked if certification is needed for sellers to verify that the information they enter is accurate. Ms. Brunner replied that she is not sure; however, Montpelier does have an enforcement piece in their ordinance for next year that addresses that issue. They can ask NEEP that question next week when they come to talk to the home energy labeling group. Chair Hansel thanked Mr. Dey for sharing the working groups' update.

- c. Electric Vehicles- Mr. Nuru stated that the EV group met last month on May 19 and they came up with 5 tasks they want to accomplish this month. First, they would like to work with the Department of Public Works to improve wayfinding signage so that individuals can find the locations of public EV chargers in Keene. Secondly, they want to work with the Greater Keene and Peterborough Chamber of Commerce to add EV station locations in the Map and Travel Guide, to help people to easily locate where the stations are sited within the City. Thirdly, they want to get data usage for

the public EV charging stations on Commercial Street to see how often they are being used to provide guidance on the siting of future charging stations in the City. Lastly, they are exploring the idea of an EV ordinance in the City and hope to have a proposal ready in the next 1-2 months. They plan to bring this proposal to the ECC committee for feedback. They are also working to host the EV Director for Revision Energy at their next work group meeting, who will share his expertise on EV infrastructure across the region. Finally, they plan to have Mr. Bruce Norlund join the EV work group meeting, which is scheduled for June 16 at 9 am.

Chair Hansel asked if there is any update to the State's availability of the Volkswagen (VW) settlement money for installing charging stations around the state. Ms. Brunner said she does not have an update; however, Mr. Roth was going to reach out to Eversource. Chair Hansel said he heard there are 12 regions that they are looking to install the chargers in in but none have received any funds. He heard that the RFQ has been so difficult to quote on that they have not received any quotes. He said he is also wondering if they are focusing on a particular site in the Peterborough area, and it is unclear if they will focus on a particular site in the southwest Monadnock region. He said there is also interest in having one at the Monadnock Food Co-Op in Keene.

d. Community Solar- Mr. Ormerod stated that the community solar group focused on reviewing properties in East Keene that could potentially host a solar array. Ideally, they would like to find a piece of property that has five acres to get up to 500 kW of solar capacity, which could power about 100 homes. He said they do not have a formal siting committee yet; however, they have some people doing some reconnaissance work and found a few sites. As they discussed them, they discovered that some sites are on a wetlands area, which would make it much more difficult for siting a solar array. Mr. Ormerod shared that they also discussed including EV charging stations in the discussion and finding a site that has close to access to the road and three phase power. He said Mr. Nuru has done more research on this idea so he will turn the update to him to share more information.

Mr. Nuru stated that the information that he has is from a business perspective from Revision Energy exploring community solar within the City. They have begun engaging with businesses and families for a possible location for community solar. He said either of those entities could lease the land or develop it themselves if they were able to find a location in the east side of the City. He stated that one family has 15 acres of land that they may be willing to lease to the City, however, he does not have the permission of the family yet to announce the name of the family and the location. Mr. Nuru stated that the City should convene a community meeting to make the announcement for opportunities to private owners to lease land for community power. He said some property owners have already been in discussion with the Mayor and the City and those conversations can be taken further to site a location for community power. He said they may be able to go up to 3 megawatts of energy. Mr. Nuru pointed out that the State's bill for 5 mw has not been passed, so the focus

should be on developing a 1 mw system currently. He said in regards to the business engagements, they have the capacity for both the east and west sides of the City and they are looking at developing one side for their business and the other side for possible off-takers, as low income has more advantage at this time in the legislation. He said at least 85% of power will be consumed by the low and moderate income communities, and Keene Housing can present a potential off-taker.

Chair Hansel stated that there is the issue of finding a site and the other is finding people to use the site and Keene Housing could be an off-taker of that power. He clarified if there is one for business entities and a potential for development of the community solar usage. Mr. Nuru agreed, however, they signed a nondisclosure agreement and that is why they cannot disclose the business or people involved. Chair Hansel asked if there is anything else that ECC can do to help that process along. Mr. Ormerod asked what the role of the community solar taskforce will be if the next step has to be within the City. He said they may need to publicize a community meeting but that usually happens at the City and Council level; he asked if there is a role for Keene Housing and the community solar group. Mr. Nuru stated that the business would need to put out a statement of expertise to complete the project which is typically the fastest approach, or the City would need to put out an RFP so that competitors can apply. He suggested they explore the first option in the interest of time.

Ms. Butcher stated that the Senate has amended the Community Power bill (HB 315) to include up to 5 MW for municipal entities and it has gone back to the House. She asked what the prospects are for that bill. Mr. Ormerod stated that it might be beneficial for the City to put out communication that they are looking for sites so that they can find owners who are willing to lease. He asked if that is possible. Ms. Brunner replied that this is very preliminary and they are still learning about its potential in NH, therefore, the work group is intended to explore the idea and the City may not be looking at specific project quite yet.

4. **Keene Community Power Program**

Chair Hansel stated that the City Council has adopted the Community Power Plan unanimously after a lot of public input and work from the committee. He stated that Keene is the first in NH to approve a program like this and it has been submitted to the PUC. They have 60 days to approve it, however, he does not know when that 60 day clock starts and they may be waiting for approval of HB 315. Ms. Brunner stated that if HB 315 gets signed into law, that will hopefully push the PUC to approve sooner rather than later which will allow the City to launch a program sooner.

5. **Legislative Updates**

Ms. Brunner stated that she sent out an email to ECC after the May meeting to inform them that the Office of Strategic Initiatives is updating the 10 year energy strategy, which is updated every 3 years. It is the guiding document for how the State will approach energy issues. The deadline for comments has been extended to June 25, so if members have comments they should submit them to OSI. Ms. Butcher stated that the plan that was done three years ago focused on getting electricity costs down and efficiency up, and she hopes that this plan refocuses on strategies for the State to transition to 100% renewable energy as the City has.

Chair Hansel asked Ms. Brunner if HB 315 will increase the cap on net metering. Ms. Brunner replied that the City was opposed to HB 315 initially, but the legislative committee went through a process where stakeholders came to the table and through a series of working groups fixed issues in the bill. The City supported the amended bill, and the amended version was passed through the House. The bill then went to the Senate, where they added language to the bill that raises the individual net metering cap from 1 MW to 5 MW, but only for municipal hosts. A municipal host is any entity that is considered a political subdivision of the state. The project has to be located in the same utility service as the municipal host, and if it is built after January 2021, it also has to be within the geographic boundary of the municipal host entity. For example, the wastewater treatment plant project located in Swanzey is not eligible because it has not been built yet and it is not located in Keene. However, any project that pre-dates January 1, 2021 would qualify even if it is outside the geographic boundary of the municipal host. She said this bill would allow any project within the geographic bounds of Keene to go up to 5 MW if it is hosted by the City.

Mr. Ormerod asked if they have a school district and a municipality, can they have two 5 MW projects and have 10 MW of capacity that could be developed. Ms. Brunner said she believes so, as long as they each meet the conditions, however, there may be other caveats. The cap is for individual projects. Mr. Nuru agreed that with the current cap of 5 MW, you can have different locations, as long as they do not exceed 5 MW for each project. He said this also answers Ms. Butcher's question about the cap as this has been adopted but has not been passed; for now, a system for next year can be focused on 5 MW instead of 1 MW. Ms. Jones agreed; she stated that both the House and Senate have passed their versions and are going to Committees of Conference in the next two weeks and then will go to the Governor; therefore, they should have an answer in the next month or so. She shared that the Committees of Conference can also take restrictions out, for example, in reference to the wastewater treatment plant.

6. Staff Updates

a. UNH Sustainability Fellow Program- Ms. Brunner stated that in January they discussed that the City had been accepted for the UNH Sustainability Fellow program for the second year in a row; which will serve to assist the City with an internal benchmarking

program for energy and potentially water use for all City buildings and facilities. She said this is the first step to bringing benchmarking into the Keene community as stated in the Sustainable Energy Plan. She stated that Phase 1 is for the City to conduct the benchmarking itself to provide proof of concept and come up with a streamlined process and automatically benchmark buildings for public information year after year. She stated that the next phase will involve community partners, like KSC and Cheshire Medical Center, to test it out further and then a few years down the line, they will explore the possibility of a mandatory program. However, that would go back to City Council. She said the hope is that the first phase is successful and that will inform subsequent phases. Ms. Brunner stated that the UNH Fellow will work full-time with Ms. Brunner and Ms. Kessler, as well as Mr. Bohannon, and she will present at the July and August ECC meetings. Chair Hansel stated that when Ms. Brunner goes on maternity leave, the Fellow will report to Ms. Kessler, as her mentor, as well as Mr. Bohannon. Chair Hansel asked if the Fellow can talk to KSC and Cheshire Medical Center to ensure that the program will be translatable to other entities and businesses in the area. Ms. Brunner agreed.

b. SolSmart “Level Up” Challenge- Ms. Brunner stated that last July, the City participated in the SolSmart program and received a Bronze designation. She said that the program is run through the US Department of Energy to highlight communities making solar energy user friendly by reducing the soft costs of solar. She said that once Keene passed the Land Development Code, they were able to add a solar ordinance to explicitly state that solar is allowed as an accessory use throughout the City and as a primary use in some instances, whether by right or through a conditional use permit. She stated that they achieved the requirements for a Gold designation under planning and zoning; however, they still have to do a few things under permitting to achieve it. They must first meet requirements for Silver designation, for example, making a commitment to processing solar permits in three days or less, which they already do for the most part. She stated that they hopefully will go straight from Bronze to Gold in the near future. Chair Hansel asked how long the designation applies and Ms. Brunner replied that it does not expire to the best of her knowledge.

c. Summer/Fall staff support for ECC and work groups- Ms. Brunner stated that she will be going on FMLA leave, and in her absence Mr. Lamb will continue to provide staff support, along with Mr. Will Schoefmann. She will send out Mr. Schoefmann’s contact information to the committee for their reference.

7. **New Business**

8. **Next Meeting: Wednesday, July 7, 2021**

9. **Adjourn**

Chair Hansel adjourned the meeting at 9:15 AM.

**Respectfully submitted by,
Ayshah Kassamali-Fox, Minute-Taker**

Reviewed and edited by Mari Brunner, Planner



City of Keene Benchmarking Program

Phase One: Municipal Buildings

Project Background

The Keene Sustainable Energy Plan, which was unanimously adopted by City Council in January 2021, recommends that the City develop a benchmarking program in order to encourage building owners to measure the energy efficiency of their buildings against comparable buildings from across the country. The first step in this process is to benchmark municipal building energy and water use (Phase One). Benchmarking allows for a comparison between buildings of similar uses and types, enabling the City to pinpoint buildings and systems that could benefit the most from energy efficiency and/or water conservation improvements. This first phase will lay the groundwork for expanding the program to include commercial buildings in the future (Phase Two).

Over the course of the summer, the UNH Sustainability Fellow will research municipal benchmarking program best practices, set up a system for benchmarking City building energy and water consumption, gather and enter energy and water use data into a benchmarking tool (Energy Star Portfolio Manager, or ESPM), develop recommendations for the City to reduce energy and water use, and assist with the development of an online dashboard to communicate City building energy and water use to the public. Deliverables will include a completed EPA Portfolio Manager profile for 13 City buildings and facilities, a written methodology for benchmarking City buildings, an online building energy dashboard, a final presentation to the Energy and Climate Committee at their August meeting, and a final report that summarizes the fellow's research, findings, and recommendations.

Progress to Date

So far, the ESPM building profiles have been set up for 13 municipal buildings. The building profiles require information such as the building name, address, gross floor area, hours



of operation, and primary use, to name some. Next, the consumption data for electricity, heating oil, propane, and water use was uploaded to the program. Consumption data is still missing in some areas, and so the data aggregation process is ongoing. There has been a lot of communication between many individuals that possess data for specific buildings, and a more streamlined approach to data collection is being developed to simplify this process in the future.

In order to understand benchmarking best practices, interviews have been conducted with several cities in New England and one city in California because they have all developed successful benchmarking programs. Summaries of those interviews are provided below. In addition, research into best practices for reporting the data to the public via an online dashboard has been done, including compiling examples of dashboards utilized by other communities.

Next Steps

The City of Keene plans to use ArcGIS to develop an online dashboard that is accessible to the public. This dashboard will display significant data on energy consumption per building, and it is hoped that this tool will be utilized to promote better energy efficiency and inform residents on energy consumption in their city's municipal buildings.



Interviews with Successful Benchmarking Programs[1]

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Interview with Katie Dorey from Burlington, VT

Burlington is one of 17 cities to join the national network of 2030 Districts. As a 2030 District, Burlington has committed to working to reduce building energy consumption, water use, and transportation emissions by 50% by 2030. Because of this commitment, all of the buildings owned by the 2030 District members in Burlington participated in benchmarking their buildings through ENERGY STAR Portfolio Manager (ESPM). Mainly two individuals—Katie Dorey and a staff member of their IT department—were able to set up all of the buildings in ESPM and keep them updated. They have been benchmarking for about 1.5 to 2 years. So far, mainly the 2030 District buildings and a small college's buildings have been benchmarked. Recently, a larger college has started to benchmark its buildings. The majority of the benchmarked buildings are commercial and higher-education with a small mix of municipal and multi-family residential. Burlington hopes to start marketing the program more to increase participation in this voluntary program. Primarily, electric data is benchmarked, and it is set up to automatically update. They recently started working with gas utilities to set up the gas data and get it to automatically upload. Their next steps are to effectively upload solar data and hopefully automate it. Burlington found that energy cost reductions and commitment to the 2030 district were great incentives to participate in the program, and they recommend connecting to utilities to automate as much as possible.

Links:

[2030 District](#)

[Net Zero Energy Roadmap](#)

[Burlington Benchmarking Information](#)

[Video on EPA ESPM & Auto-Upload Tutorial](#)



Interview with Ammon Reagan from Berkeley, CA

Program Overview

Berkeley's [Building Energy Saving Ordinance \(BESO\)](#) was adopted in 2015. It originally mandated that buildings 50,000 ft² or greater in gross floor area comply with the ordinance, and building owners officially began to benchmark their energy use data in 2017. In 2018, the building threshold changed to 25,000 ft² or greater, and in 2022, they plan to decrease the threshold further down to 15,000 ft² or greater. The goal of the ordinance was to reduce the energy usage of all benchmarked buildings. ENERGY STAR Portfolio Manager (ESPM) is used for initial data gathering and is the only tool that building managers and owners utilize. Those working with organizing and analyzing the data also use Salesforce and SEED which are free tools to Berkeley from the California Department of Energy. Ammon Reagan estimated that it took 1 full-time employee to set up every 600 buildings, and around 30,000 total buildings were benchmarked. California has a state-wide benchmarking mandate, so all building owners and managers aware of the state mandate and ordinance are compliant. Otherwise, they would receive a fine. The only occasion there is no compliance is when building owners are not aware of the ordinance.

Challenges / Lessons Learned

Berkeley has a 50-60% compliance rate because of complications with informing building owners due to multiple factors, such as the city not having up-to-date mailing addresses. Another issue Berkeley faced was getting tenants to disclose their energy data within multi-tenant spaces. California passed a bill that requires whole-building energy data reporting, so cities like Berkeley no longer needed individual tenant data. Reagan also worked on the entire San Francisco benchmarking program before starting and completing Berkeley's program and plans to create a dashboard similar to the one he created for [San Francisco](#), which is linked below. It shows live and historical data to show energy consumption data.



Recommendations

The City of Berkeley benchmarked 10-15 municipal buildings out of 30,000 buildings of all types total, and Reagan stated starting with municipal buildings was a great way to start to create an initial model to create a baseline when transitioning into the private sector. He also advised cities to know their implementation plan (knowing how data will be collected and disclosed) before finishing their ordinance plan, and also to engage with stakeholders and have adequate building representation when developing the ordinance.



Interview with Chris Mason from Northampton, MA

Massachusetts had passed the Massachusetts Green Communities Act in 2008 which required the state to commit to making energy more efficient, and part of that process requires benchmarking. Northampton has been benchmarking municipal buildings since 2009 intending to be able to see energy use and performance. The process began with simply tracking energy data within an Excel sheet, but it did not effectively cover all accounts, so they transitioned into using ENERGY STAR Portfolio Manager (ESPM). Later, they switched over to MassEnergyInsight which is a program offered by the state of Massachusetts which best organized all of their city building accounts. Because their utilities are directly connected to the program, they can track even the smallest area of electric energy consumption, so they do not require a building threshold for benchmarking. The automatic uploading system updates monthly. The data they upload manually is updated annually, and the data includes heating oil, gas, propane, diesel, and solar energy. It took about six months to complete the setup of the program. The biggest challenges of initially setting up the benchmarking were data aggregation, accessibility, organization of accounts, knowing all the accounts that exist. Mason advised that reducing as much of the grunt work as possible and working with utilities to automate data entry will make the benchmarking process much smoother. He also suggested prorating the energy consumption by gross floor area for multi-tenant municipal spaces from the whole-building data if part of the building is not paid for by the City.



Interview with Lucy Perkins from South Portland on their Energy Benchmarking Ordinance

Program Overview

The City of South Portland's [Energy and Water Benchmarking Ordinance](#) was adopted in 2017. South Portland was a pioneer in benchmarking buildings and adopting a benchmarking ordinance as a small city in New England. As a part of the [Mill Creek Master Plan](#) to transform the community into a traditional downtown area, and a part of the [One Climate Future Plan](#) that pushes reducing South Portland's footprint on the environment, the need for a Benchmarking Ordinance was apparent. The ordinance originally mandated that all non-residential buildings 5,000 ft² or greater and all residential buildings with 10 or more dwelling units must comply with the ordinance. Recently, the City of South Portland [revised its ordinance](#). They increased the threshold for non-residential buildings to 20,000 ft² and have the ordinance apply to the whole City of South Portland rather than the originally defined regions.

Challenges / Lessons Learned

The reason for revising their ordinance was because they found issues with benchmarking were not useful for smaller businesses, and they wanted to benchmark more buildings. They also found that larger buildings were much easier to benchmark. Benchmarking multi-residential buildings was also very challenging. They often were unable to obtain whole-building data because some tenants refused to disclose their energy and water data. They hope to work with Central Main Power to get the whole building data to avoid relying on tenants and only getting partial-building data. Another complication with benchmarking was it was very demanding on staff time. Lucy Perkins ran the program and stated it took about 30-40 hours to set up 30 buildings. Perkins worked with every building owner to teach them how to use ENERGY STAR Portfolio Manager (ESPM). They hope to get more assistance from their Sustainability Office. The revisions made in the ordinance should also cut down staff time demand.

Recommendations

The most successful components of the ordinance were the incentives, working with larger buildings, developing meaningful relationships with building owners, and serving as a leader in benchmarking smaller cities in the Northeast. Perkins advised that we use incentives, which do not have to be financial, involve the people in the buildings to join the conversation, have transparent communication about benchmarking, and provide a lot of assistance with teaching buildings owners how to use ESPM as a city transitions into the private sector.

Useful Link:

<https://www.southportland.org/our-city/board-and-committees/comprehensive-plan-committee/b/>



Interview with Troy Moon on the City of Portland on their Energy Benchmarking Ordinance

Program Overview

The City of Portland adopted its [Energy Benchmarking Ordinance](#) in November of 2016. Portland is one of the few small cities to set up a [benchmarking program](#) and adopt a benchmarking ordinance. The city wants to reduce CO₂ emission by 80% by 2050, and they want to promote property owners, buyers, and renters to make energy-efficient decisions. Benchmarking enables them to establish a baseline for their buildings' performances, and it will also provide quantitative insight on how to reduce their energy consumption to achieve their environmental goals. Portland decided to use ENERGY STAR Portfolio Manager (ESPM) to benchmark their data because it was free and easiest to train building owners on. The ordinance originally mandated that municipal buildings 5,000 ft² or greater and non-residential buildings over 20,000 ft² must comply with the ordinance. They also required multi-residential buildings with 50 or more dwelling units to report their energy data. As of July 15, 2019, the threshold for residential and non-residential buildings changed so that any building with a single tenant that utilizes 90% or more of the building space that is greater than 20,000 ft² must report must comply with the ordinance. Troy Moon along with two other staff members benchmarked 200 buildings and 50 of them were municipal buildings.

Challenges / Lessons Learned

Portland changed the building threshold to only include single-occupant buildings because there were many complications with trying to obtain whole-building data in multi-residential and multi-tenant buildings. The revision in the ordinance removed that obstacle. Between communicating between building owners, training owners to use ESPM, and collecting all the data needed from multiple utility sources, setting up the benchmarking program was a very time-consuming task. They found utilizing volunteers, having workshops, and posting videos/webinars online helped speed up their training process. They also found a way to



streamline uploading their utility data for municipal buildings by getting rid of summary data and having their data sorted to include everything they need for benchmarking. This data is then put on an online dashboard that only the staff can access to upload the information. Lastly, they had a large mailing list that made it easier for them to reach out to building owners and inform them about the ordinance. They plan to start going through their list of buildings that still have not complied with the ordinance to find the best people to reach out to, and they can update their mail list. To help with compliance, the ordinance outlines a daily fee that increases after a period of time should the building owners fail to report their energy data.

Recommendations

Moon advised trying to hire someone that can collect the utility data for municipal cities and format it to improve manual entry. Having a mailing list of building owners may also speed up the outreach process. He also suggested preparing resources for training building owners in ESPM. Overall, it is important to understand this is a very time-consuming process, so it is best to be prepared for how much work it will take to develop.

Useful Link:

[The City of Portland Energy - Ordinance Document \(Chapter 6, Article X, Page 56\)](#)