

City of Keene
New Hampshire

ENERGY AND CLIMATE COMMITTEE
MEETING MINUTES

Wednesday, August 4, 2021

8:00 AM

Council Chambers/via Zoom

Members Present:

Peter Hansel, Chair
Jake Pipp
Paul Roth
Zach Luse
Suzanne Butcher
Bryan Lake
Andrew Dey
Jude Nuru
Clair Oursler, Alternate

Staff Present:

Will Schoefmann, GIS Technician
Tara Kessler, Senior Planner

Members Not Present:

Cary Gaunt, Vice Chair
Councilor Raleigh Ormerod
Ken Dooley
Hillary Ballantine

1) Call to Order and Roll Call

Chair Hansel called the meeting to order at 8:00 AM. Roll Call was taken.

2) Approval of Minutes – July 7, 2021

Chair Hansel noted a minor correction to the minutes stating the second line on page 5 should read “21 houses by 2021.”

Bryan Lake made a motion to approve the minutes of July 7, 2021. Zach Luse seconded the motion which passed unanimously.

3) Update from UNH Sustainability Fellow: Municipal Building Benchmarking Project

Tara Kessler introduced UNH Fellow Jackie Harris to give her final presentation consisting of an overview on her research for establishing a benchmarking program for the City. She reminded

the committee that benchmarking was one strategy of the Sustainable Energy Plan that was adopted in 2020 to help the City reach its renewable energy goals. Mrs. Kessler went on to state that starting a benchmarking program for municipal buildings involves a lot of steps, which Ms. Harris' research illuminated, as well as key lessons learned and recommendations for the City to consider moving forward.

Ms. Harris first went over the work she completed during the duration of her fellowship, noting that all deliverables will be compiled into a report for viewing at the end of August, 2021. She mentioned a "Creating a Benchmarking Program" plan that offers a step-by-step breakdown of the process with detailed descriptions of work completed and recommendations for future development. This will include recommendations for Phase 2, the voluntary benchmarking program, and Phase 3, the mandatory program, based on interviews conducted with other municipalities who are also undertaking city-wide benchmarking.

Ms. Harris reported that she collected energy use and cost data and completed Energy Star Portfolio Manager (ESPM) profiles for 13 City buildings and 2 sub-buildings, as well as connected electric meters that have data automatically uploaded. She added that documentation for the methodology used is included in the report, as well as an example building profile using data from ESPM.

Next, Ms. Harris reviewed key steps and recommendations for the City to consider as it works to develop a municipal benchmarking program. She noted that the original vision was for her to start and complete the benchmarking program and provide suggestions for energy and water usage reduction; however, during the process it became clear that there were important steps that needed to take place before the program could launch. As a result, Ms. Harris shifted her focus to create an Action Plan that could be used by the City to develop its benchmarking program. She reported the main points as follows:

- Laying the Groundwork – Ms. Harris recognized this as the first step to creating a successful benchmarking program, which involves establishing benchmarking objectives. She noted the City's goals of transitioning to 100% renewable energy by 2050 and increasing participation in energy efficiency programs, stating that the benchmarking objectives need to be more specific in order to set measurable targets and utilize collected data in the most effective way.

Additionally, securing buy-in from key stakeholders is necessary and Ms. Harris reported realizing there were more people than originally anticipated that needed to be involved to obtain energy data. She made note that not all individuals contacted for data were aware that a benchmarking program was being considered and reiterated that obtaining everyone's buy-in early on is critical for making the process smoother and ensuring active participation. She mentioned that individuals from the Finance Department and Parks and Recreation Department agreed that finding a more effective way to centralize the energy and water consumption data would be beneficial.

Lastly, Ms. Harris stated it's important to decide which buildings to benchmark before undergoing data collection and data entry. She gave the example of having a building size threshold, noting that larger buildings are typically easier to benchmark,

- **Data Collection and Framework** – Mr. Harris stated output metrics must be identified first and will depend on the chosen benchmarking objectives. These will inform what metrics are useful for input and how to track the progress of building performance. Next, she suggested setting data input requirements to reduce time spent on data collection and more easily identify data gaps and errors. Ms. Harris reported that the City should develop a standardized process for data collection and hold the data in one format and place that is accessible to everyone in the City. She noted that she found a standardized method using ESPM which could be used to help guide the City in the future. She then touched on selecting a benchmarking tool and noted that she used ESPM for the pilot program to determine the benefits and limitations of the tool. She described the program as free and having many features, but stated it had a significant learning curve and some limitations, which she outlined in her report. Lastly, she mentioned that the City should consider a data verification process for quality control.
- **Data Analysis** – Ms. Harris clarified that the steps taken in data analysis are heavily dependent on the aforementioned steps. She stated when evaluating analysis techniques it's important to consider questions such as whether or not the performance should be based on baseline to current year comparison or compared nationally. Lastly, she mentioned that the City must plan for change and constantly check in on what works and what doesn't, keep key stakeholders engaged, and obtain a variety of feedback.

Ms. Harris showed an example of a building profile for the West Fire Station demonstrating the possible data ESPM offers for reporting. She clarified that EUI stands for Energy Usage Intensity, noting it is a very useful output metric. The current consumption data can be compared to the manually set baseline year of 2019, which she noted is adjustable, or to the national median values of other fire stations. Ms. Harris reported that target values could be set for benchmarking goals as well.

- **Communicating the Data** – The final steps Ms. Harris covered were to communicate the plan to ensure transparency and security, and then develop a dashboard as a way for the community to see the benefits of benchmarking and highlight the purpose and positive outcomes of the program.

Ms. Harris then summarized key lessons learned and challenges presented. She stated that more communication is needed, data collection is challenging and requires pre-planning, benchmarking takes more time and labor than originally anticipated and analyzing and reporting data is limited by the data entered into the system. Additionally, there were challenges measuring

how much green energy is being utilized by certain buildings so that information couldn't yet be uploaded by the benchmarking tool.

After conducting interviews with other municipalities, Ms. Harris noted some key recommendations for Phase 2 and Phase 3, which she stated the City is not quite ready for at the present time. These recommendations included having a diverse group of individuals involved, outreach as a key step, providing as many resources as possible for training and building owners to use the benchmarking tool, having a mentality of adaptation, using incentives, and adjusting building thresholds for compliance.

Mrs. Kessler thanked Ms. Harris and noted her incredible work during her time with the City, and gave thanks to Mari Brunner for her efforts as well. She stated there is much more that they need to do within the city to have a successful benchmarking program beyond just data collection and choosing a tool. A critical component of that will be laying the groundwork and obtaining buy-in internally, which she stated is a process that has begun. She mentioned that if the City is interested in considering a voluntary program they have an opportunity to understand benchmarking tools and how metrics can be best utilized for measuring the achievement of goals. Additionally, understanding the staff commitments for measuring the City's programs as well as the potential for a community-wide initiative is an important next step. Mrs. Kessler ended by stating that they are going to continue to work on the benchmarking program and see if there's enough confidence in the tool that they are using and the output measurements they've identified, and whether or not their objectives are being met.

Chair Hansel thanked Ms. Harris for her work and inquired whether or not the building size threshold had been decided. Ms. Harris stated she believed the City should make that decision, noting that it depends on which buildings are being looked at, such as City buildings versus multi-residential. She reiterated that it's typically easier for larger buildings to get benchmarked.

Chair Hansel then asked if she had received feedback from those she interviewed on the ESPM tool and if it was the best option out there. Ms. Harris stated she felt the tool was great but that it isn't very intuitive when you first start using it, making note that other municipalities had mixed reviews. She stated the smaller rural cities mostly used ESPM and larger cities were using programs established by their government to better meet their individual needs.

Chair Hansel next referred to planning for change, agreeing that it was an important point made during the presentation. He offered the scenario of ESPM changing their format in the upcoming years causing the City to be able to adapt and merge new data with old data.

Mr. Dey mentioned the recommendation of having resources for training building owners to use the tool with the intention of building owners benchmarking their own buildings. He noted that if there's a steep learning curve with the tool it might be a lot to ask of the owners.

Chair Hansel wondered if they would have the building owners do the data collection and entry using the tool, or would it just be data collection and they provide it to a centralized place where it would then be added into the tool by someone from the City. Ms. Harris stated most municipalities she interviewed had building owners collect and upload data using the tool

because they can have their own accounts and share it with the City. Mrs. Kessler added that the municipalities provided support staff to answer questions for owners collecting and uploading data so they weren't left on their own to figure out the tool.

Mr. Roth asked if the municipalities that had their own programs continued to use Energy Star or if they exclusively use their own programs. Ms. Harris stated it appeared that most only used their own programs. Mr. Roth stated with their own program they would lose the national comparison option.

Scott Melansky stated, from past experience, using ESPM with mixed-use buildings can be challenging to benchmark. Ms. Harris stated she did run into some issues with mixed-use buildings and had to adjust, but noted that if the primary function of the building is over 50% of the gross floor area, you can say the whole building is that one function.

Chair Hansel brought up green energy and stated it needs to be decided whether they want to measure energy consumption or energy purchasing. He suggested energy consumption regardless of where the energy is coming from. Ms. Harris stated with solar energy the only data they could find was solar energy generated. ESPM can capture the information but they did not have the numbers.

4) City of Keene, Land Development Code Presentation

Mrs. Kessler informed the committee that on May 20, 2021 City Council adopted a new set of land use regulations, including zoning, planning board and Historic District regulations, and other standards and rules that relate to how the City uses and develops land. The regulations will be officially taking effect on September 1, 2021. She explained that over time regulations need to be revisited and updated because they impact economic opportunities, as well as the look and feel of the City.

Mrs. Kessler went on to state that the regulations have not been comprehensively updated since 1970, but have been updated in a fragmented way over time. In the 2010 Master Plan a top goal was to update the land use regulations to be more aligned with the goals of the Master Plan and to look at the zoning in the City to make sure it was meeting desired development patterns. There are currently a number of regulatory documents that are difficult to navigate and sometimes inconsistent.

Mrs. Kessler explained that for the past three years, in partnership with the Planning, Licenses and Development Committee, City Council, and a number of stakeholders in the community, they have embarked on an effort to make the City's Land Development Code more simple, efficient and thoughtful, and put all regulations into one document. This included reviewing all regulations to identify and fix outdated information and any conflicts with current development patterns and needs in the City. Additionally, they updated the downtown zoning and created six new zoning districts, which she pointed out is a significant change. Mrs. Kessler showed the color coded zones to the committee and mentioned that each has its own set of standards for buildings in the area. She explained that they worked with a consultant to develop standards that

will help preserve the current pattern of development so the look and feel can persist into the future. With respect to uses, they tried to expand the number of uses allowed in the downtown districts and modernize it, while ensuring the current development pattern continues. Additionally, they established regulations to encourage a new development pattern in areas such as Gilbo Avenue to promote the look and feel of Main Street.

Mrs. Kessler stated that they tried to align, where possible, with the Master Plan and one of those areas is introducing solar energy into the code. Current regulations do not address solar systems. She noted that when referring to solar energy she means solar as the primary use of a lot, which is different than accessory solar where someone has solar on their roof or in their back yard. She explained that they worked with the SolSmart Program to understand National standards and ordinances around solar energy and tailored that around Keene's needs. They clearly identified solar as an allowed accessory use in any district. The standards they established are as follows:

- **Roof Mounted Solar:** On a sloped roof the highest point of the system cannot exceed the highest peak on the roof which it is attached. On flat roofs the highest point of the system cannot exceed 10 feet above the roof surface. Any associated devices/equipment shall not extend beyond the exterior perimeter of the building.
- **Ground Mounted Solar:** Cannot exceed 2,000 square feet as a footprint as an accessory use, must be accessory to principal use which is on the same lot, cannot exceed 15 feet high at maximum tilt, and has to comply with setback and lot coverage requirements from zoning, which relates to measuring panel coverage for impervious calculations.

Mrs. Kessler next explained that they introduced solar energy standards that are focused on solar as the primary use of the lot, for energy generation purposes. They created 3 categories of small scale, medium scale and large scale solar based on size in footprint. She briefly reviewed each category's standards as well as the districts where each category would be allowed. Mrs. Kessler noted that medium and large scale solar would be allowed by a Conditional Use Process which is an approval that would need to be granted by the planning board with additional standards required. The board will review the nature, scope and scale of a proposed energy system and ensure that standards are being met, and, if approved, the permit would stay with the lot into the future.

Mrs. Kessler mentioned that there had been questions as to why solar systems in the Industrial District would require additional review, and they changed it so that they would be permitted by right since they allow manufacturing by right in that district.

Paul Roth and Clair Oursler left the meeting and a physical quorum was lost. Chair Hansel stated they will distribute report-outs electronically and anyone with questions on Mrs. Kessler's presentation could reach out to her directly.

5) **Energy Plan Work Group Report-outs**

- A) **Weatherization**
- B) **Home Energy Labeling**
- C) **Electric Vehicles**
- D) **Community Solar**
- 6) **Community Power Program**
- 7) **Legislative Updates**
- 8) **New Business**
- 9) **Next Meeting: Wednesday, September 1, 2021**
- 10) **Adjourn**

Chair Hansel adjourned the meeting at 9:09 AM.

Respectfully submitted by,
Nicole Cullinane, Minute Taker