

City of Keene  
New Hampshire

**ENERGY AND CLIMATE COMMITTEE MEETING AGENDA**

Thursday, July 5, 2018, 8:00 AM

2<sup>nd</sup> Floor Conference Room, City Hall

**Members:**

Dr. Ann Shedd, Chair  
Peter Hansel, Vice Chair  
Terry Clark, Councilor  
Jessica Baum, Member  
Chris Brehme, Member  
Larry Dachowski, Alternate

**Staff:**

Mari Brunner, Planning Technician

**Members not present:**

Jake Pipp, Member  
Aperr Naadzenga, Alternate

1. **Call to Order and Roll Call**

Dr. Shedd called the meeting to order at 8:03 am.

2. **Approval of June 6, 2018 Meeting Minutes**

Vice Chair Hansel moved to accept the June 6 minutes, Ms. Baum seconded and the motion was passed unanimously.

3. **Committee Membership**

Dr. Shedd asked if members have had any luck garnering interest from community members with energy and policy backgrounds to serve on the committee. She said that she and Ms. Brunner have compiled a list of contacts from the school district and some other entities and she asked if members had contacts that would bring energy expertise to the committee. Councilor Clark asked if there was anyone in the Energy Hub that could become a member. Dr. Shedd replied that she was the only Keene Resident in the Hub. She reemphasized that someone with energy and policy background would be very useful. Dr. Shedd said the Mayor would make an exception for someone who lived outside of Keene who has strong connections to Keene, however, not someone who lives out of state, like Professor Tom Webler from Keene State College.

Ms. Brunner read through the list of names of potential committee members, which includes Mr. Chris Tasoulas, Mr. John Tasoulas, Ms. Virginia White, Mr. Mitch Greenwald, Ms. Dory Masden and Ms. Judy Kalich, who are all landlords in the area. The list also includes Ms. Trisha Wadleigh from Healthy Monadnock, Ken Dooley, the Director of Buildings and Grounds for SAU 29, and Pablo Fleischmann, the owner of Green Energy Options. Ms. Brunner said the Mayor has accepted people living outside of Keene as members in the past. Vice Chair Hansel said he knows Ms. Kalich and does not know if she has any energy experience. Dr. Shedd said she will try calling Ken Dooley at SAU 29. She asked if someone else could follow up with Mr.

Dooley if she does not able to contact him before she leaves for vacation. She will be on vacation for the rest of July. Mr. Clark said he would contact Mr. Dooley. Vice Chair Hansel said he would try contacting Ms. Diana Duffy from Keene State College again. Dr. Shedd said Ms. Duffy would be helpful in the capacity of developing the scope of an Energy Plan even if she cannot be an ECC member. She also stated that she does not think any other ECC members are due to rotate off at the end of this year. Ms. Brunner said she could provide Dr. Shedd with a list of current committee members with term expiry dates.

4. **Discussion about Energy Plan Proposal:**

- a. **Goal/Scope of the Plan-** Dr. Shedd said Ms. Brunner, Vice Chair Hansel and Mr. Rhett Lamb met to discuss City staff involvement in the development of an Energy Plan. Ms. Brunner stated that the City Manager is interested in developing an Energy Plan and Mr. Lamb stated it would be a staff-driven process. There is also the possibility of hiring someone for data collection and other research aspects. She said details still need to be discussed and worked out. Ms. Brunner said there are other committees working on plans of their own, but developing an Energy Plan is quite an undertaking for a volunteer committee. She stated that having City Staff working on the Plan will be very helpful in moving the process forward. Dr. Shedd agreed that having the potential for staff involvement early in the process would expedite the process.

Mr. Clark asked if the scope of the plan would be municipal or community-based. Ms. Brunner replied that Mr. Lamb asked ECC to come up with a draft scope of work to provide to the City Manager as a starting point. She said Dr. Shedd and Vice Chair Hansel have done a great job of putting together a draft scope of work (handouts to members) and informed members that the document is also available in the Google Drive folder she created. She asked if members have been able to access that document. All members replied yes. Dr. Shedd stated that the document addresses several areas, any one of which could be a significant project in and of itself. She said they have been deferring creating a new vision and targets due to attention on the Greenhouse Gas Report in 2015, the different tie-ins to the Energy Plan, as well as other similar community initiatives like the Ready for 100 Campaign and the League of Conservation Voters. She said the process for determining what the City's goals should be is a significant task. Vice Chair Hansel said that Ms. Brunner had created a spreadsheet format with the same information that he found easy to follow. Ms. Brunner said she would resend the spreadsheet if it would be helpful to members. Dr. Shedd agreed that it would.

- b. **Stakeholders to Engage-** Dr. Shedd asked members how much the ECC should be involved in creating the vision and targets that will drive the plan. Ms. Baum replied that regarding the stakeholder conversation, she is hesitant about moving forward in developing a vision and scope without clear input from the community. She expressed confusion about the scope of the work for ECC as she feels it is impossible to manage the enormous task with volunteer time and the vision needs to come from the City and the community instead—through a process of stakeholder engagement from the onset. Vice Chair Hansel replied that ECC has more information available to them than stakeholders typically do, therefore, he views the process as a two-way street in which ECC provides advice and allows stakeholders to respond, rather than having them come up with their own vision. Ms. Brunner encouraged members to keep in mind that the City is asking ECC to come up with a draft scope of work and that the bulk of the work will be undertaken by City staff with input from ECC.

Dr. Shedd asked at what point a workshop for City Council would be useful for pulling the information at the visioning and target level together. Mr. Clark replied that typically staff works on a topic for some time before they put together a template to present to Council and then Council narrows ideas down with a white board. Vice Chair Hansel said at some point City Council will be asked to vote to accept a plan but he believes that would be down the road. Dr. Shedd stated that October is Energy Awareness Month, and asked if perhaps a brief agenda item would be helpful in bringing Council up to speed about the Energy Plan and provide an opportunity to discuss progress that has been made at that point. Mr. Clark replied that typically when committees present to Council, they are asking for permission to do something. He said every month Council goes through each committee and sometimes has people come in to update them. Dr. Shedd stated that a couple of weeks ago, one of Professor Tom Webler's students from Keene State College presented a student project to Council on residential solar in Keene, and Dr. Shedd received a call from Ms. Megan Foley at the Keene Sentinel about how the student presentation fits into the ECC Energy Plan. She said she responded by stating that they are "planning to plan." Dr. Shedd said that the updated State Energy Plan which was released a couple of months ago, and the plans of other municipalities which are quite well-developed, have been left out of the draft scope of work document. She said the Town Manager for Lebanon hired a consultant from Oregon to assist that city with narrowing down how to reach its 100% renewable energy goals.

Mr. Dachowski shared that he is getting lost in the weeds and asked for an agreement between committee members that they recommend an aspirational goal as a starting point. He noted that, over time, compromises typically occur and the end result is a less aggressive goal than the initial stated goal. He said that the ECC should be aiming to solve electricity, transportation, commercial, residential and heating problems in all aspects by 2050 in Cheshire County and the Monadnock region. Dr. Shedd asked if they needed a motion to state that ECC supports these aggressive goals. Mr. Dachowski agreed that he moves to go on record as favoring a full commitment to reaching zero greenhouse gas (GHG) emissions by 2050 in every aspect and Ms. Baum seconded. Dr. Shedd asked for discussion from members.

Mr. Brehme stated that a 50% reduction by 2030 is a reasonable goal for the draft scope of work. Mr. Clark agreed that incremental steps are important. Vice Chair Hansel said zero GHG emissions may not be possible, as it involves many things outside of people's control, for example, emissions from the agricultural sector and he is concerned people will think that goal is unattainable and will lose interest altogether. Mr. Dachowski replied that they should allow people to think that and encouraged ECC to set a strong vision anyway and work out details after promoting a vision. Dr. Shedd said agricultural emissions account for about 9% of emissions in the United States. Ms. Brunner asked for clarification if the zero GHG emissions implies net zero, as carbon sequestration is a part of the equation as well. Mr. Dachowski said starting at zero is important and then they can discuss the wording of details thereafter. Ms. Baum added that there is beauty in setting an inspirational goal that does not necessarily focus on the "how" for benchmarks; however, going beyond ten years for planning is difficult because technologies change quickly and they do not know what the landscape will look like fifteen years from now. She said she is a science-minded person, but she believes keeping the language as simple, heart-centered and non-scientific as possible is a good thing to do even if that becomes hard in the implementation.

Dr. Shedd stated that burning of fossil fuels accounts for 80% of GHG emissions, so while they might continue to struggle with animal husbandry contribution to emissions, alternatives to fossil fuel use can be controlled to a large extent. A number of small and large cities have adopted 100% renewable targets, including New York City, Atlanta and San Francisco, and they can be measurable and achievable with emerging technologies and updating plans. She said if they are ready to go that far, adopting the State goal of 80% reduction by 2050 is reasonable.

Vice Chair Hansel said it makes sense when developing the vision to have an opening sentence stating what the ECC would like to see happen. For example, achieving net zero by 2050 could be the proper opening sentence; however, they must also detail what will happen between now and then to reach that goal. Mr. Dachowski said he does not think it is easy or perhaps even realistic to reach zero GHG emissions, but if they don't aim for the moon, they will not get to the top of the closest hill. Dr. Shedd said that framing it as related to the charge of the committee remains useful. There are a lot of ways that reducing fossil fuel use increases resilience.

Vice Chair Hansel said he still senses tension between establishing a vision themselves and going or asking stakeholders what they want their vision to be. He said he is favor of making a statement and asking if people agree or if they want to modify it. He said the committee does not know which way to go. Ms. Brunner said it is helpful for ECC to make recommendations and have a structure for stakeholders to place their input, as well as explaining to stakeholders how they arrived at that goal. Dr. Shedd stated perhaps the City would assist in finding ways to take a statement out into the community for input. Dr. Shedd revisited the motion wording and said it does not specifically address their energy sources. Mr. Clark noted that if the committee makes a statement like this, they will have to deliberately oppose Liberty, because it is Liberty's intention to increase GHG emissions. Dr. Shedd said there was an article in the Keene Sentinel about Liberty extending the line under the Ashuelot by Winchester Street, and two days later another article citing an article from the Union of Concerned Scientist stating that leakage of methane from pipelines outweighs the "transition fuel" benefits of natural gas and that it is as bad as burning coal.

Dr. Shedd asked if they need to wordsmith the motion before voting on it. She said the word "zero" may need some adjustment. Mr. Clark asked what the difference is between "zero" and "net zero" emissions. Vice Chair Hansel said it is similar to offsetting. Mr. Dachowski said if they manage to offset 2% of their GHG emissions, they still have to reduce the other 98%. Ms. Baum suggested using the word "insetting" instead of "offsetting" as semantically, the word "offsetting" implies the purchasing of carbon credits, versus taking local action within the City limits to sequester the carbon. Ms. Brunner said that someone suggested using the term anthropogenic as well. Mr. Dachowski restated that the emphasis should be on zero-produced GHG emissions in a philosophical sense as the first sentence. Vice Chair Hansel said this is only one part of their vision as a means of formulating their thinking as they move forward to draft a vision. Ms. Baum suggested stating "an aspirational vision aiming for zero emissions within all sectors..." Dr. Dachowski said that would mean in all aspects.

Ms. Baum said it is important to make it clear that the goal is referring to scope one and two GHG emissions and not scope three emissions. Scope one and two emissions are under the City and community's direct or indirect control, however scope three emissions are not within the City or community's control. Mr. Dachowski stated that he is talking about the big

picture. Ms. Baum replied that the emissions that it takes to transport solar panels, for example, are the City's responsibility. Mr. Dachoswki said that people need to pay attention and there is no such thing as zero emissions, even with nuclear power.

Dr. Shedd stated that in terms of a committee vision or goal, she would like to propose a statement which reads "the ECC endorses a goal of a carbon neutral Keene community encompassing all sectors by 2050." Ms. Brunner asked why they are changing the terminology from "GHG emissions" to "carbon neutral." Dr. Shedd replied that zero GHG emissions may not be possible given that the environment produces its own GHGs naturally. Mr. Brehme said that he likes the wording "carbon neutral" because he wants to be able to defend the statement and for it not to impact the credibility of the committee. Dr. Shedd said they could use a preparatory clause such as "in order to reduce GHG emissions as much as possible, we endorse a carbon neutral..." Vice Chair Hansel said what they are trying to state is the vision should be "zero by 2050" but the sentences that follow will need further wordsmithing. Mr. Dachowski stated that he does not even think the statement needs to be sent to City Council or in a news release as it can serve as an internal agreement among committee members. Dr. Shedd stated they might not even need to make a motion if it is just consensus; however, it would be helpful to have something formal. Council Clark said they should take a vote. Dr. Shedd asked for help with the wording.

**Mr. Dachowski moved that the ECC endorse the aspirational vision of zero human-caused GHG emissions in all sectors and aspects community-wide by 2050.**

Ms. Baum seconded and the motion was passed unanimously.

- c. **Data Needs-** Dr. Shedd stated that they will also need baseline data about Keene's energy use, some of which can be pulled from the Greenhouse Gas Report and other State sources. She said this area will need a lot of fleshing out. Ms. Brunner asked if Dr. Shedd planned to go over the draft scope of work piece by piece, or if she was asking for general feedback at this point. Dr. Shedd said she would like to go over the four broad areas. For example, what they would need from the City to flesh out a scope of work with both internal and external staff. Ms. Brunner asked if Dr. Shedd if the goal is to have the scope of work done by the end of the meeting or if it will continue to be revised throughout the coming month. Dr. Shedd said it would be helpful to get feedback from Mr. Lamb. Ms. Brunner said Mr. Lamb has seen the first draft of the scope of work but not the revised version. Vice Chair Hansel said he thinks they should look at Ms. Brunner's spreadsheet format and adapt the draft scope based on that format and perhaps a working group session or another ECC meeting to define the scope. Vice Chair Hanse said he would like to keep moving on it and if everyone agrees on the content they can format it to present to Mr. Lamb.

Dr. Shedd pointed out at on the back of the handout there is information about an organization called ICLEI, which the City of Keene is a member of. ICLEI may help them in various stages of planning. In addition, the EPA is releasing a local government solar project portal that will be another useful tool for municipal renewable energy projects. She said the ECC does not need to do all of the work locally, as there are a number of national and international organizations trying to move communities in the directions ECC wants to move in. Vice Chair Hansel said he can take the document and incorporate it into Ms. Brunner's format and give Dr. Shedd a copy of that new document. Dr. Shedd said as they work on the

shared Google Drive all members will be able to see the changes and if they have comments they can send comments to Ms. Brunner. Ms. Brunner said committee members can add comments directly into the document on the Google folder, but any substantive ideas would need to be presented at a meeting and members should not make any decisions online. Dr. Shedd said a list of community-stakeholders will be put on Google Drive and it would be okay for members to comment on potential stakeholders left out of the list.

5. **Updates:**

a. **Sustainability Coordinator Request -**

Mr. Clark announced that they were unsuccessful in obtaining approval for a Sustainability Coordinator. He said the proposal was defeated 8 to 5. Some Councilors were missing and the dynamics were skewed. He said the new direction for the Energy Plan is a good sign and they can keep the pressure on and come back with a request next year. Vice Chair Hansel added that his daughter is the Planning Director in Portsmouth, NH and she said that their Sustainability Coordinator is not providing much leadership, therefore, having an individual with that title does not mean everything will be solved. He thinks commitment from the staff will be very helpful but ECC should also continue aiming for a Sustainability Coordinator position.

Ms. Brunner stated that she received an email from Mr. Kürt Blomquist with new information about the energy use of the waste water treatment plant, which is the largest user of electricity in Cheshire County. The email stated that they are doing significant work on becoming more energy efficient and using renewable energy. She said the Greenhouse Gas Report indicated that they have reduced their emissions by over 30%, which is a great example of what can be done with a concerted effort. Ms. Brunner said she will put that information up on Google Drive for members to see.

Mr. Clark added that there will be a field trip later this month to a sewer treatment plant in Maine which is capturing hydrogen to produce energy. Dr. Shedd said she sent Mr. Duncan Watson a link to the Resilient Energy Group out of Vermont which has upcoming presentations on battery storage at waste treatment plants as a resilience measure. She asked why the solar photovoltaic project at 350 Marlboro Street is not aiming for battery storage in the event of a major weather disaster so that if the power goes out they have energy backups. Dr. Shedd stated that there a number of emerging technologies that are currently being developed and need to be included in the Energy Plan and be ready to be modified as technologies change.

b. **NH Climate March September 8<sup>th</sup> -**

Dr. Shedd announced that on Saturday, September 8, 2018 there will be national mobilization of climate marches and rallies initiated by 350.org and other environmental organizations. This year, the NH climate march will take place in Keene. The Monadnock Progressive Alliance (MPA) Clean Energy Team is taking the lead to organize the march in Keene as they did with last year's climate march. There will be a number of events and she will update the committee on those as she discovers them, as it might be a good idea for ECC to table at the event and get some community engagement.

c. **Monadnock Energy Hub** –Dr. Shedd stated that the Hub will be signing a contract for a staff position of about twenty hours per week to work on the Monadnock Region's support of

local energy committees, both municipal and non-governmental, and in the fall they aim to begin a solarize campaign to kick off in January 2019. She said part of the success of these solarize campaigns in other regions has been the support from local energy groups- municipal or not. She said they will be learning more in the fall about what kind of support energy committees will need to be prepared to offer, which may involve recruiting other volunteers in the community who would help advise prospects about solar installations. She said one of the supporters of the Hub is the NH Sustainable Energy Association and the Local Energy Solutions working group. She said that these two organizations hold their annual conference in November. She will propose a workshop as part of the conference so that different communities working on energy plans can compare notes and learn from each other's processes and stumbling blocks so that it is easier for everyone to work together towards a common goal.

- d. **NHDES Electric Lawnmower Demonstration in Keene, August 1, 2018** – Dr. Shedd announced that on August 1<sup>st</sup> over by the air quality monitoring station on Water Street, immediately following the next ECC meeting, the New Hampshire Department of Environmental Services (NHDES) is performing a demonstration of the air quality monitoring station and the role of gas-powered lawn equipment in air quality issues. She said there will be models available of electric mowers and weed whackers. She said community members will come in for demonstrations and the Norm's Bike folks may ride down on their electric bicycles, and people with electric cars may also be present. She encouraged ECC members to stop by. Vice Chair Hansel asked if there is any idea about lawnmower contribution to air quality issues. Ms. Brunner read a statement on the event's brochure which states that one hour's use of a gasoline-powered lawnmower is equivalent to driving 300 miles. She said that one of the problems with gasoline-powered lawnmowers is leakage. Dr. Shedd said that NHDES is on board with encouraging community members to switch over to electric mowers. Mr. Dachowski added that there are plenty of lawn and mower equipment stakeholders in the community. Ms. Brunner announced that the event takes place from 10-12 pm after the next ECC meeting and members could walk over together from the meeting if interested.

e. **Drive Electric Week September 8<sup>th</sup> -16<sup>th</sup>**

Dr. Shedd announced that September 8-16 is NH Drive Electric Week and there are plans from the Hub members to have a car show that will showcase electric vehicles, bikes and motorcycles. She added that both electric charging stations in downtown were in use last week and she feels the need for EV electric infrastructure is coming.

6. **Outreach and Engagement Opportunities**

a. **National Energy Month October 2018**

Dr. Shedd announced that October is National Energy Awareness Month and this can provide opportunities for community engagement.

b. **Public Art/Passive Engagement**

Dr. Shedd announced that Ms. Brunner has been working with Friends of Public Art. Ms. Brunner said she has not yet spoken directly with them about involvement with ECC, however, she knows people involved with Friends of Public Art. She said if ECC is interested in collaboration she would be happy to ask them to come in and talk to the committee as they are always looking for community groups to work with and to let her know if they would like

to arrange that. Dr. Shedd asked members if anyone is interested in being an outreach person for Friends of Public Art. Vice Chair Hansel stated that during last month's meeting, members spoke about having a sub-group on Communication. Mr. Brehme replied that he would be interested in participating in a Communications working group as his wife is an artist and interested in becoming involved with Friends of Public Art. He said they have discussed having a GHG emissions art motif project although he is aware that they would have to wait after the one year cycle is over to pursue that due to advance planning.

Ms. Brunner said that the Friends of Public Art group promotes the month of May as "Mural Month" and they typically paste temporary murals onto the sides of buildings. A group called Walldogs is organizing a festival which will bring in approximately 150 artists from around the world to create permanent murals throughout Keene. Vice Chair Hansel said Walldogs also looks for community feedback on topics. Ms. Baum replied that they typically have a historical focus. Dr. Shedd agreed, but she said she had spoken to Professor Cusack at Keene State College about the potential for his students to research the energy history of Keene. She said perhaps they could build on that concept for an artist engagement project. Dr. Shedd said she sent Mr. Brehme a link on the subject of persuasive cartography and the historical use of pictorial maps for garnering support for wars and the future potential for maps for creating support for energy transitions.

Ms. Baum announced that she is a renter and she is excited to say that she found a program called Arcadia Power that allows her to get 50% of her electricity from wind power for free. It connects directly to her Eversource bill, and she pays \$10 extra per month to get 100% of her electricity from wind power. She said it feels different than purchasing renewable energy credits because it is in real-time and works directly with the utility company. She is telling all of her renter friends to get on the program.

Dr. Shedd stated that in August, Monadnock Progressive Alliance's energy team is planning a workshop on making sense of renewable energy options for consumers. Vice Chair Hansel added that he spoke to someone from Patriot Energy, a power broker in Massachusetts, about what they do when a company or community wants to buy all renewables. They told him that they provide them with recs that would cover all community needs. He also asked if they have come across a model where a number of businesses have come together and offered to give them all of their business if they provide them with renewable energy credits. He said they replied that there are models like that out there; however, there are only so many recs out there so there is a limit on availability. Ms. Baum said that Arcadia Power also has the option of buying into building solar infrastructure.

Ms. Baum shared that at work she is researching solar incentives, and she found out that the federal 30% tax credit is sun-setting and W.S. Badger Co. is looking to take advantage of it by the end of this calendar year. She said by 2020 the incentive will be reduced to 20%, so it is advantageous to purchase solar panels before the incentive goes down. Dr. Shedd said that one of the objectives of the solarize campaign is to take advantage of the 30% solar incentives and Vice Chair Hansel agreed now is a good time, especially with the increased cost that will come with the new tariffs.

Dr. Shedd shared that Green Mountain Power, the utility company in Vermont, owns a lot of power walls. Customers have the option to rent a power wall for about \$15 per month rather than purchasing one. She said during heat waves when everybody is using air conditioners, this would remove the need for a power plant that operates only during times with peak



energy demand. She said that model could be extended to other states in the future and represents a whole different model for reducing peak energy demand.

7. **Next Meeting: Wednesday, August 1, 2018-**

Dr. Shedd adjourned at meeting at 9:22 am.

Respectfully submitted by,

Ayshah Kassamali-Fox, Minute Taker

Reviewed and edited by,

Mari Brunner, Planning Technician