State of New Hampshire
State Government Energy Committee

Meeting Summary Notes
Committee Meeting

Monday, April 9, 2018
2:00 to 4:00 PM

Conference Room
Fish and Game Department
11 Hazen Drive, Concord, NH 03301

Meeting Purpose:

Staff will present a summary of energy specific legislation. Explore opportunities for additional fossil fuel and cost savings and identify the barriers that may impede progress.

Attendees:

Co-Chairs: Robert Scott, NHDES and Jared Chicoine, Office of Strategic Initiatives

SGEC Members: Bill Cass (Dept. of Transportation); Heather Fairchild (For David Clapp, Dept. of Health & Human Services); Karen Cramton (Public Utilities Commission); Steven Lavoie (Dept. of Safety); Warren Perry (Adjutant General's Department); Karen Rantamaki (Dept. of Admin Services); Seth Prescott (Dept. of Nat. and & Cult. Resources); and Rick Fink (Fish and Game Department).

Staff: Donald Perrin (Dept. of Admin Services); Tara Merrifield (Dept. of Admin Services); Tim McDonald (NH National Guard); Christopher Ellms (Office of Strategic Initiative); Chris Moore (Dept. of Admin Services); Rebecca Ohler (Dept. of Environmental Services); Deandra Perruccio (Public Utilities Commission); Chris Skoglund (Dept. of Environmental Services); Alexis Labrie (Office of Strategic Initiative); and Liz Strachan (Dept. of Environmental Services).

Meeting Agenda:

1. **Welcome & Introductions** – *Rick Fink, Fish and Game Department and SGEC Co-Chairs Jared Chicoine, OSI & Robert Scott, NHDES*
2. **Approval of Summary Notes from January 8, 2018**

Passed with no discussion, objections, or abstentions

3. **Energy Legislation Re-cap** – *Rebecca Ohler, Administrator, Technical Services Bureau, NHDES and Chris Ellms, Energy Advisor, OSI*

Rebecca Ohler reviewed house and senate bills pertaining to energy, including bills on energy codes, renewable energy, net metering, energy efficiency, and vehicles.

It was asked if any of the bills discussed would provide opportunities to the State for continued progress towards our goals of reducing fossil fuel use. Potentially the bills on net metering

could increase the system size allowed for net metering, which would provide a potential benefit of larger renewable projects owned by the state. A bill that could hinder the ability of utilities to expand their energy-efficiency programs could in turn make it more expensive for the State to complete efficiency projects. Another bill which would hold the amount of solar energy required in renewable portfolio standards at 6 percent from 2015 to 2025 rather than increase by an additional 0.9 percent per year could be a disincentive for investment into solar projects around the state.

4. Opportunities for Further Progress – Rebecca Ohler

Facilitated discussion of opportunities and challenges related to achieving greater fossil-fuel reductions and avoiding further energy costs.

Rebecca Ohler presented a brief history of the SGEC and outlined the progress towards the goals set out for the group, which resulted in the State including avoiding over $32 million in energy costs over the past ten years. She stated that the staff has brought ideas to the group such as Renewable Energy Credits (RECs) and Building Automation Systems (BAS) and the staff has listened to ideas from members and worked to make progress on them (such as renewable energy projects on state owned land and energy efficiency in leased space).

Don Perrin gave a quick outline of work he has done on creating a working group on the building automation systems issues. Robert Scott asked if there were trained personnel available to work on the BAS and know how to best schedule the system for weekend use versus weekday use. Don said that in digging deeper into the subject he found that some buildings had dedicated staff to work with the building systems and some did not.

Chris Skoglund gave a brief example of how an SGEC member recently brought up the idea of using State land for renewable energy projects, and sensitized state energy staff to the topic. As a result, when a solar project application in Concord was denied due to an interpretation of how each panel would affect the total calculation of impervious surface area, staff looked into the issue. In doing so, they were able to identify a state and non-profit effort to develop municipal guidance on solar siting guidance and connect them to insure their final documents were consistent and that the impervious surface issue was addressed.

Rebecca then stated that this discussion was a time to get ideas for opportunity from the SGEC members that the staff could work on.

Opportunities that were brought up during the conversation included the following:

A. <u>Operations Issues:</u> It was brought up that you could spend a lot of money to build a very efficient building with a complex building automation system, but for a number of reasons it may not result in efficiency improvements.

- i. Commissioning
  - a. One agency mentioned their building was never commissioned. What are the rules around commissioning requirements, when and how does that get built into project contracts, etc?
- ii. Staff
  - a. Time: Too often the person put in charge of the building system is so busy responding to alarms that they don't have the time to properly learn the system or

take the time to make it work at its most efficient settings. Energy management is not a top priority and it takes time to pull and evaluate reports, troubleshoot issues, develop improvement suggestions.

b. Training: There is a need for more training of maintenance personnel working with building systems. Is there a certificate for energy building managers? Are there courses available? Could there be a building systems group that helps each other with the problems they have and help cross train individuals in varying systems?

c. Job Description: The question was also brought up about who should be responsible for this? Often facilities managers are not thinking about building management from an energy use perspective. For example, UNH has three energy management staff that monitor the systems for energy use issues and submit work orders to maintenance staff to address problems.

d. Additional Staff: It may not be that every maintenance staff needs expensive training or a more complex job description, another option may be to hire on a number of supervisory positions with responsibility for energy use in a certain subset of buildings (possibly buildings with the same operations systems).

iii. An energy supply company can look at older control systems and can make suggestions for where things need to be updated; which could result in more current programs that are more user-friendly.

iv. Reduce ventilation that is running even when a room is empty for hours. Reduce the number of motors that need to be running all the time. For example a motor pumping water to a chiller.

v. Create end-of-life planning for systems. This would create a planned change to a new system and allow for renewable options to be considered, instead of reacting to a system failing and replacing with the same system. This would include not only planning, but education of what type of systems are available.

B. **Building Envelope Upgrades**: It was pointed out that you can have the most sophisticated building system in place and if the building isn't properly insulated you will not achieve the efficiency you are looking for.

C. **Solar Panel Projects In Parking Lots**: Why are they not already being installed there? There are so many opportunities to do this as seen in other states, why isn't New Hampshire doing it. It was noted that some states invested state and federal money heavily into solar. It was also pointed out that electric vehicle charging stations could be paired with solar projects to offset the demand that electric vehicles may add at a meter or the entire electric grid.

D. **Data Management And Sharing:**

i. It was pointed out that we don't even know what we have, so getting a base inventory of all the existing buildings and systems in the buildings is a good spot to start. Once the buildings are inventoried they could be grouped by area and have one Energy Savings Performance Contract for a bunch of buildings in one area.

ii. Use the performance contracts and energy audits on existing buildings to identify other efficiency opportunities.

E. **Procurement:** Create a user friendly chart on the procurement process. For example, if you are trying to do X this is the path you want to take.

   i. Make sure that the SEM office is involved in any path that has renewable or efficiency projects.

   ii. Might be good to make the system easier for energy efficient projects as an incentive for agency's to make their projects more efficient.

   iii. Setup a group or liaison to meet with agency representatives when they want to undergo a project in order to direct them down the correct path.

   iv. Release the conventional vehicles contract and the alternative fuel vehicle contracts at the same time.

F. **Telematics:** A device that gives the health, location, mileage of the vehicle, in fleet vehicles would potentially return a 5-40 percent reduction in fleet costs depending on how much of the options are utilized.

G. **Vehicle Maintenance:** There is a need to have a mechanical contract for the whole state in order to gain economy of scale.

H. **Demand Management:**

   i. If demand charges are a problem the state could offset that with renewables and/or storage.

   ii. It was stated that all the buildings on Hazen Drive have a startup schedule to prevent a large sudden demand on the grid, but that is done by maintenance personnel and is not automated. It was suggested that this might be something we would want to get automated.

   iii. Create more awareness of demand management.

I. **Downsize Old Data Systems:** that are out dated and require more power to run.

J. **Leased Space:**

   i. When leasing a building is the efficiency of the building a factor? The wording about efficiency was put into RFPs when looking for leased space; however, if you only get two responses and neither of them have efficiency aspects you don't have many options. Leverage is often low with leased spaces.

   ii. One agency pointed out that some agencies have mostly leased space with utilities often included. Is there a way to incentivize/require landlords to disaggregate and manage energy usage?

K. **Metering:** Many buildings are not separately metered causing a problem when trying to figure out where the energy use is going. There is a pilot program being completed by the State Energy Mangers office that will test energy use on the circuit level in order to determine where overuse is happening. The pilot will be done in one building or area and will last a year with information on the energy use being reported throughout the year. Metering on a more finite scale rather than a whole building. This may also help with identifying areas that are doing well and reward them as an incentive for others to try to be more efficient as well.

L. **<u>"Best Practices" Document:</u>** Create a "best practices" document for building controls and distribute to all state owned buildings. Include tips for cooling in buildings without central air. Perhaps have a mini consultation on efficiency and explanation of best practices.

M. **<u>Senior Level Support and Oversight:</u>**

i. In order for any of these to work it would be best to have buy-in from the top down.

ii. There was also an advisement to walk before we run; take a holistic, strategic approach to improvements and tackle the basics first. (*e.g.*, don't get fancy controls without staff to run them)

iii. End goal is successfully managing energy of a building- need oversight to make sure this is happening

a. Evaluation, measurement and verification for energy projects

b. Who is tracking, who is overseeing energy goals for buildings?

c. Controls team? Put together a group tasked with overseeing energy use management? See issue #4 data management as related issue.

5. Review of Upcoming Plan: – Jared Chicoine

Jared gave an update on the Volkswagen settlement fund, and stated that OSI and DES have been working on a draft mitigation plan that would be released tomorrow. The plan calls for using up to 15 percent of the funds for electric vehicle supply equipment (EVSE); 50 percent of the funds to replace government vehicles (60 percent municipal and 40 percent state owned); 20 percent for non-government projects; and 15 percent for administrative costs. The total 15 percent is not expected to be used on administrative costs and any leftover will be used for additional projects. It was asked if the older vehicles being replaced need to be destroyed and it was explained that yes, it is a requirement of the settlement that any replaced vehicles be destroyed by putting a 3-inch hole in the engine block and cutting the chassis in half. Someone asked if the money was being given to the State in a lump sum or was it being distributed out over time. It was explained that the State could request up to 1/3 of the money per year and that at the end of 10 years if 80 percent of the funds were spent it would put the state in a position to potentially gain additional money from states that had not spent 80 percent in the first ten years.

6. Updates

See handout

7. Next Meeting

a. Date: July 9, 2018

b. Location: TBD

c. Topics: TBD