

Minutes

Energy Efficiency and Sustainable Energy Board
NHPUC, 21 S. Fruit Street, STE 10, Concord, NH
December 5, 2008 Meeting

*Items underlined and in color are hyperlinked to documents.

Members in Attendance: Richard Ober of NH Charitable Foundation, Jack Ruderman of OEP, Clifton C. Below of NHPUC, Meredith Hatfield of the OCA, Joanne Morin for Robert Scott of DES, Roy Duddy, Interim Director, Division of Economic Development of DRED, Daniel Feltes of NHLA, Rep. David Borden, Susan Olsen of NH Municipal Association, Senator Martha Fuller Clark, Kenneth Walsh of NH Fire Marshal, Dick Henry of the Jordan Institute, Wes Golomb of NH SEA, Dean Christon of NHHFA, Karen Rantamaki, State Energy Manager, Patti Carrier of NH Ball Bearings.

Non-Voting Members in Attendance: Gil Gelineau of PSNH, John Puc of National Grid, Cindy Carroll of Unitil, Derek Buchler of Northern Utilities, James Grady of Lightec, Inc., Charles Niebling of New England Wood Pellet, Janet Brewer of Ocean Bank.

Link to Meeting Agenda: [Meeting Agenda](#)

1. Welcome & Chair's Remarks.

Chairman Ober convened the meeting at 9:10 A.M.

He Thanked **Meredith Hatfield, Jack Ruderman, Tom Getz and Clifton Below** for a great job in getting the board's 12/1 report out on time.

Chairman Ober announced that:

Jack Ruderman would be leaving his post at OEP for a position as the Director of the PUC's Sustainable Energy Division - starting 12/29. **Clifton Below** welcomed Jack and noted that the PUC was excited to have Jack joining them and that the PUC has high expectations for him and looks forward to working with him.

Derek Buchler announced that **this was his** last meeting of the EESE board as he will be changing positions as a result of the merger of Unitil and Northern Utilities. **Clifton Below** noted that Derek has assisted on the GDS Study with the PUC and that they have enjoyed working with him throughout his career. **Derek Buchler** resigned his seat on the board and thanked everyone for many great years of working together.

Karen Rantamaki has been hired as the new State Energy Manager and will be replacing Michael Connor's seat on the board. She noted that she is excited to get started in her new position and to get involved with the board.

Chairman Ober also announced that he would like to start reserving the last 15 minutes of every meeting to conduct a round table discussion with board members and attendees in order to be able to discuss any new announcements or news that pertains to the board.

2. Adoption of November 13, 2008 Meeting Minutes

Jim Grady moved to adopt the minutes. The motion was seconded by **Meredith Hatfield** and unanimously adopted by the board with no changes presented.

3. NH Energy Efficiency Potential Study: Reactions and Discussion

Before beginning the discussion on the Energy Efficiency Potential Study conducted by GDS Associates, **Clifton Below** reminded the group that comments are welcome during the meeting as well as via email after the meeting. Comments can be submitted to [Jennifer Ducharme](#).

Chairman Ober began the discussion by stating that this report is an exhaustive and comprehensive piece of work and that there is a lot of information being brought forth without a lot of time to review it. He reminded members that it is not within the board's jurisdiction to change any of the conclusions within the report, but instead we can help to make the report understandable to the public. He also asked members to be listening for specific parts of the report to comment on and to try to understand the general direction in which the report is going. Due to the great length of this report it may be helpful to try to fully understand specific sections of the report as opposed to trying to understand the whole thing.

Clifton Below commented that this was a year long effort. This report is very long and many people reading it will want to focus their attention on the executive summary. A good way to begin comments will be to make sure that the executive summary is accessible and understandable to as many people as possible. Commissioner Below noted that due to the request of many board members that the written comment deadline would be extended until 12/12/08.

Dick Henry commented that he would like 2 weeks to be able to review all of the material and to understand this very important report. Since this report is going to be used so extensively, it is really important to make sure that there is ample time to comment and he proposed a deadline of 12/19/08.

Scott Albert noted that a comment deadline earlier than 12/19 would be better for GDS since their goal was to get the report completed and ready for

release by Christmas. **Chairman Ober** asked for a compromise and set the written comment deadline by end of business day on 12/15/08.

Commissioner Below noted that some might find it helpful to have GDS explain the model that was used and that it could be working model and the report a living document that can be used in the future. Necessarily there must be some simplifying assumptions. All of the information used was the best available information and we will be able to update the assumptions going forward.

Senator Martha Fuller Clark commented that it would be good to state up front that this is a living document, and that may be good information to provide in the introduction.

Scott Albert and **Ryan Capers** from GDS Associates took over the presentation on the Energy Efficiency Potential Report and take questions from members and interested parties.

Scott Albert noted that GDS has done over 20 potential studies in the US but this one is unique because of the amount of primary data collected and the number of measures which exist. He noted that this is a very NH specific study based on the info collected and most of the studies performed are solely based on the best information available. This is also the most comprehensive list of measures studied and a new scenario for energy efficiency potential was added, the potentially obtainable scenario.

The [handout](#) provided definitions for the 4 scenarios used in the study; and were summarized as follows:

- **Technical Potential** - Assumes every measure is replaced on Day 1 based on a good, better, and best scale on some options and then savings are calculated;
- **Maximum Achievable Potential** - Assumes that new energy efficient equipment is installed once the existing equipment burns out or at the time that new construction is being installed;
- **Maximum Achievable Cost Effective (M.A.C.E) Potential** - Defined as the portion of the Maximum Achievable Potential (Defined above) that is also cost effective according to the PUC approved 'total resource cost test' **before consideration of a customer's behavior**; and
- **Potentially Obtainable** is an estimate of the potential for the realistic penetration over time of energy efficient measure that are cost effective according to the PUC approved 'total resource cost test', while **taking customer behavior into consideration.**

Scott Albert went over the potentially obtainable scenario with the board. He noted that based on telephone surveys, the report assumes that approximately 73% of residential customers and 48% of commercial customers would actually install energy efficient measures knowing the high costs associated with the installation so long as the cost of the installed measure, per kWh saved, was no more than 7 cents per kWh. Approximately 35% would still install the measure if the installed measure cost more than 7 cents per kWh. Board members suggested that GDS translate the yearly savings of kWh's and dollars into the final report.

Scott Albert noted that GDS used the 7 cents figure (above) based on their knowledge of energy efficient products as well as from other studies and energy audits conducted. **Scott** also notes that this report's conclusions do take current energy efficiency programs into account.

Joanne Morin asked **Scott Albert** what kinds of questions were asked during the phone surveys in order to come up with his results. **Scott Albert** noted that Appendix A, B & C of the report show the phone surveys (questions and answers) and that the purpose was narrowly focused on trying to determine what types of equipment are currently used and what percentage of that equipment is currently effective. Additionally, the phone surveys were used to try to measure penetration of existing energy equipment, measure customer behavior towards current programs, measure customer interest in future programs and determine their likelihood of installing energy efficient measures.

Dick Henry noted that this report only calculates yearly savings and not lifetime savings, which is how measures are calculated in many other reports. He noted that this could be a problem and that it could cause confusion.

Clifton Below commented that the phone surveys are a way to see that fewer people are likely to install energy efficient measures as the costs to install those measures go up. In reality it is a curve and the GDS model is based on simplifying assumptions. This is a potential study and we are recognizing that the max achievable scenario is very difficult to obtain.

Dick Henry noted that the preamble discusses gas and electric savings but doesn't seem to focus on oil. **Scott Albert** noted that GDS tried to focus on natural gas, oil and propane. GDS realizes that 57% of homes in NH are heated with oil and that people will be focused on that. **Clifton Below** commented that the report needs to be clarified to show the savings applied to gas, oil and propane individually, because it is not clear now.

John Puc asked if GDS took into account future codes and technology into the report. **Scott Albert** noted that the report takes into account current

technology and the replacement of current technology with energy efficient versions of the same technology. He noted that the data might be overstated a bit when it comes to lighting due to LED technology.

Tom Frantz noted that originally LED lighting did not pass the cost effectiveness test and now it's some of the most efficient lighting. Something may show up next year that exceeds LED's efficiency and also passes the cost effectiveness test. He reminded everyone that this report is to be used as a planning tool.

Wes Golomb asked if environmental externalities were included in avoided costs. **Scott Albert** noted that the avoided costs used were the ones captured in the [NE avoided energy supply cost study](#) conducted by Synapse Energy.

Scott Albert again noted that this was a high level study and should be considered as Phase I. He noted that simplified assumptions were used and the report should be looked at as a working tool for policy issues in the future.

Representative David Borden wondered if we were limiting ourselves to the technical potential in this report and wondered if we could go beyond that. He stated that sometimes you can be saving energy but you have to give up other things. For example: an energy efficient refrigerator may be much smaller in cubic feet than the refrigerator that you are replacing. **Scott Albert** noted that the model in the report as currently designed assumes an energy efficient replacement but does not recognize conservation efforts such as purchasing a smaller appliance. Additionally, GDS used the standard size refrigerator for its baseline assumptions.

Chairman Ober commented that this was an important issue because the board needs to determine what goals should be adopted and if the board should try to reach those goals or to go beyond them.

Dick Henry stated his concern with labeling. He notes that this report puts labels on the potential obtainable scenario and that could be a problem so that people don't feel locked into a particular label. He notes that we want to try to radically change what people see as possible.

Meredith Hatfield commented that when we look at your own homes we can realize why we haven't been able to install energy efficient measures: the issues is really financing. Addressing this could open up a whole new area for installing energy efficient measures. **Scott Albert** noted that there were no financial assumptions made other than cost effectiveness. Available financing was not included in the report, but financing is an additional tool that can be used to change customer behavior.

Clifton Below noted that there was not an attempt to consider fuel switching in this report except for solar hot water. There are some measures listed in the report but they were not modeled.

Chairman Ober wondered if it might be a good idea to look at the GDS study in unison with the climate change task force report to make sure that they coincide and that the conclusions are the same or similar. He noted that having different conclusions could confuse the public and that the board could potentially miss a tremendous opportunity to provide credible information.

Joanne Morin noted that it could be done but it would take some time for UNH to work that out. **Senator Martha Fuller Clark** commented that the board should at least look at the disparities of the 2 reports and if they are different then at least work to try to understand why they are different.

Meredith Hatfield noted that it might work if the results were different because they looked at different things. **Clifton Below** noted that the reports are different and may be difficult to compare. This report takes more of a 'bottom-up' approach and tries to be more analytical on an individual measure basis. Also, the GDS report shows energy savings potential through the year of 2018 while the task force report goes beyond - into 2025 & 2050.

Joanne Morin noted that perhaps confusion was being drawn by the labels used in the report and that it could be as easy as removing or replacing certain words. She noted that the word "maximum" could create problems.

Gil Gelineau commented that the term "technical potential" should be changed to "theoretical potential" because that scenario assumes that all changes are being made on day one without any marketing or installation constraints, and that is just not possible. He also noted that it is very important to fully understand this report and perhaps work on re-labeling it so that that it can be clearly and positively conveyed to the public. Additionally, he noted that the board may need to re-evaluate this report with reality checks taken into account in order to make sure that these efforts are possible.

BREAK - The meeting recessed at 10:37 a.m. for a short break and resumed at 10:54 a.m.

Scott Albert noted that the feedback that the board was giving him was very helpful. He also noted that if the board was given \$2 million tomorrow for energy efficiency measures, this report should help you figure out where to spend it. For example, the commercial sector saves much more energy than the residential sector so that would be a great sector to invest in. It is very

important to understand that this report should be used as a road map to figure out where to invest your money and which initiatives have the most energy saving potential.

Dan Feltes commented that the cost effectiveness test in the report does not take into account market transformation issues and whether or not it is economical to provide rebates to customers who were already going to install energy efficient measures on their own. **Scott Albert** noted rebates were not generally looked it in the report and that customers may just need to be aware that a product exists and not necessarily be aware that a rebate is available.

Ken Walsh asked if there will be anything noted in the report that looks at future energy code changes and whether or not the report will correlate with those changes. **Clifton Below** noted that this report is a working tool that will allow us to keep the basic models in place in order to update the information in the future. **Meredith Hatfield** noted that it would be helpful if the report included up front language listing all of the key assumptions in the report. Additionally the report should state the assumption that current measures and energy codes are leading us in the right path.

Dick Henry wondered if perhaps there should be some sort of glossary in the report with definitions listed as well as models and assumptions used.

Senator Martha Fuller Clark noted that more information should be listed in the report because not everyone will review the appendices due to their length.

Chairman Ober asked all board members to read the executive summary and decide which areas need further clarification. He then asked members to red-line and submit changes to [Jennifer Ducharme](#) by the end of the day on 12/15. He reminded members that GDS & the PUC may or may not choose to change the language in the report but the EESE board can always change wording/issues when conveying it to the public. Technical issues or concerns can be directed to [Tom Frantz](#) at the Puc as well.

Tom Frantz asked members to work together to submit comments so that PUC Staff did not get inundated with numerous emails providing the same revisions.

4. RGGI Funds: Deferred to January EESE board meeting to allow time for Jack Ruderman to start at the PUC and to allow time for the first RGGI auction in December.

5. Work Plan Priorities: Deferred to a future EESE board meeting.

6. Legislation

The board discussed the current list of 2009 Legislative Service Requests ([LSR](#)) which pertains to energy initiatives and the EESE board. **Senator Martha Fuller Clark** noted that the deadline for submitting LSR's for the 2009 session was 4pm on that day, December 5th, but offered to file an LSR which would put in a placeholder for recommendations of the EESE board. She noted that currently there was not an abundance of LSR's dealing with energy initiatives and she believes that many people are waiting to digest all of the information that has come out of the EESE board and Climate Action Task Force reports, as well as the RGGI auction, and then they will deal with legislation at that time. The state's current budget situation can also sometimes be a hindrance in submitting legislation. **Meredith Hatfield** commented that a budget crisis would be the perfect time to deal with reducing the state's energy costs.

Charlie Niebling began his discussion of legislation with a quote, "We have exactly enough time if we start right now." He noted that he would hate to have to wait until the 2010 session to submit legislation due to budget issues and has some ideas for legislation which could potentially not cost the state anything. His ideas were:

- a) To take a hard look at the installation of boilers and other pressure vessels. The statute governing this is over 45 years old and needs to be updated by the Dept. of Labor who currently regulates this;
- b) Review statutes which oversee all heat utilities with a focus on hot water which is not currently regulated by the PUC;
- c) "Fair Access to the Grid Act" as named by Mr. Niebling, which provides for a system going forward that allows equal access to the grid whether you are a large utility, or small independent power producer. This idea also incorporates the idea of a 'watts per mile charge;' and
- d) Provide a legislative mandate for a 25% reduction (by 2025) in the state's energy consumption - incorporating all heat sources, not just electricity.

Thomas Getz commented that submitted legislation to better define what a utility is might be a good idea because it is currently defined in very old and outdated legislation.

Dick Henry noted that he concurred with Charlie Niebling's ideas especially on the recommendation of the regulation of pressure vessels. He also suggests legislation to create tangible milestones (deadlines) for reducing

the state's energy consumption 25% by 2025 - which would give much more meaning to the Governor's order of 25x25.

Chairman Ober commented that perhaps the board could put in a placeholder for legislation regarding energy efficiency measures in municipal and county owned facilities. This recommendation came after hearing comments from **Clifton Below** and **Jim Grady** regarding the current process for state/municipality energy efficient retrofit policies.

The board ultimately decided that it would ask **Senator Martha Fuller Clark** to file a legislative placeholder (LSR) on behalf of the EESE board which would incorporate the recommendations of the EESE board and might include some or all of **Charlie Niebling's** legislative ideas.

7. New Business - Round Table Discussion

Meredith Hatfield asked members and interested parties who would be available on December 13th and 14th to volunteer for the [OEP Stay Warm Initiative](#). She noted that groups of 3 worked best and that volunteers could watch a [training video](#) online to get more information.

Bob King noted that there are advancements which could be made through smart metering to improve access to the grid for small renewable sources, and he would be willing to be a part of that group if such a group begins.

Wes Golomb noted that the 2nd Annual Home Energy Conference presented by SEA would be held on December 6, 2008 at UNH. The event is not yet sold out and you can get more information and tickets at www.nhsea.org.

Cindy Carroll announced that Unitil had closed on the purchase on Northern Utilities that week and that the merger was officially complete.

Joanne Morin noted that the final Climate Action Task Force meeting would be held on 12/15 and that the report would be completed by the end of the year. The final meeting would be held at the [NH Audubon Center](#) on 12/15 from 9AM - 2 PM and is open to the public.

Jack Ruderman noted that there were also 2 other reports on their way to being released: The Thermal Renewable Energy Study by OEP to be released by the end of the year and the 25x25 ongoing report to be released by the end of January.

Eric Steltzer noted that some of the recommendations in the thermal report coincided with **Charlie Niebling's** legislative recommendations.

Thomas Getz commented that the Commission to expand transmission to the North Country also issued its progress report on December 1, 2008. The report can be found on the PUC website and that **Senator Martha Fuller Clark** has

submitted legislation in order to extend the North Country Transmission Commission past December 1, 2008.

8. Future Meetings

The next meeting of the ESSE board is scheduled for December 19, 2008 at the [Local Government Center, 25 Triangle Park Drive, Concord, NH](#). We will begin brainstorming about the RFP and rebate process regarding RGGI and **Meredith Hatfield** has offered to pull up the RFP's that other states have issued and will share those with the board. **NOTE: THIS MEETING WAS CANCELLED.**

January 9, 2009 will be the first EESE board meeting of the new year and will be held in Hearing Room A at the PUC and all subsequent meetings are to be held on the 2nd Friday of each month with the possibility of adding additional meetings on the 4th Friday of each month if deemed necessary. All meetings are scheduled from 9 a.m. - 12 p.m.

There being no other business to come before the board, **Chairman Ober** adjourned the meeting at 12:03 p.m.