

Minutes

Energy Efficiency and Sustainable Energy Board

Rooms 302-304, Legislative Office Building, 9 AM – 12:30 PM

April 9, 2010 Meeting

*Items underlined and in color are hyperlinked to documents.

Members in Attendance: Richard Ober of NH Charitable Foundation, Jack Ruderman of NHPUC, Meredith Hatfield of the OCA, Eric Steltzer of NH OEP, Mike Fitzgerald for Robert Scott of DES, Alan Linder for Daniel Feltes of NHLA, Wes Golomb of NH SEA, Patti Carrier of NH Ball Bearings for the NH BIA, Dick Henry of the Jordan Institute, Karen Rantamaki, State Energy Manager, Beth Fischer for HBRANH, Ben Frost for Dean Christon of NH Housing & Finance, Bob Reals, Jr. for Roy Duddy of NH DRED, and Representative Jim Garrity.

Non-Voting Members in Attendance: Gil Gelineau of PSNH, Fred Paine of National Grid, Carol Woods for Ray Gosney of the NH Electric Cooperative, Charlie Niebling of New England Wood Pellet, Janet Brewer of Ocean Bank, Megan Hoyer for Jim Grady of Lightec, Inc., and George Gantz from Unitil Energy Systems.

LINK TO MEETING AGENDA: [MEETING AGENDA](#)

1. WELCOME & INTRODUCTION, CHAIR'S REMARKS

Chairman Ober convened the meeting at 9:13 A.M.; he welcomed everyone to the meeting and asked everyone in the room to introduce themselves. {Introductions followed}.

2. APPROVAL OF [MARCH 12, 2010 MEETING MINUTES](#)

Chairman Ober asked for a motion to approve the 3-12-10 minutes. Eric Steltzer moved to adopt the minutes. The motion was seconded by Meredith Hatfield. There were 2 minor edits made to the minutes: Bob Reals, Jr. from DRED was in attendance (and not listed) and Ben Frost from New Hampshire Housing was not in attendance (but was listed). The minutes were unanimously approved subject to those 2 changes being made.

3. [RENEWABLE ENERGY: HOW DO WE GET TO 25% CARBON REDUCTIONS BY 2025?](#)

Chairman Ober introduced the panel and the panelists, which was arranged with the help of Charlie Niebling, Meredith Hatfield, and Jim Monahan (The Dupont Group). The intent of the panel discussed was to answer the core question above through engaging with leaders from four perspectives on the issue.

Scott Brown, New Energy Capital (NEC) – New Energy capital finances large renewable energy projects. They have invested over 60 million into projects (none in NH). He noted that NEC places its dollars wherever the return is highest and that state incentives and state regulatory framework are critical. Payoffs are made on a 20 year period and the project must be able to support long term financing.

A REC market, under RPS, is very difficult to finance. Connecticut had the strongest REC market in New England at one time and that market collapsed to almost zero once they exceeded their demand. NEC has financed the refurbishment of the biomass plant in Greenville, ME,

(which is now the cleanest wood plant on the market) and that project has now entered into the REC market in MA. There is now a solar REC program in Massachusetts which allows for \$300 per megawatt of generation, making these projects more appealing to financiers.

When asked whether NH could meet its goal of a 25% reduction by 2025, Scott recommended that NH set a carbon goal and then let the market reach that goal. He also noted that every country in Europe which has enabled feed-in tariffs has exceeded their goals well ahead of schedule and that it has become a very effective program. His hope by 2025 is that NH will support efficiency and the most cost effective manner of getting there. He suggested that 20% more energy should be locally produced so that NH is not so reliant on transmission; he also promoted district energy systems and co-generation systems. His hope is also that there is no coal in the state (and hopefully no coal in the country) for both environmental and non environmental reasons. He noted that there needs to be a state mandate in place in order to reach our goals and that the environmental benefits need to be mandated for people to respond.

Susan Geiger, Orr & Reno (Former PUC Commissioner) – Susan first noted that she was not attending the meeting on behalf of anyone and that she was just providing her own observations as someone who has been working within the energy field since 1994. She noted that NH has a proud history of promoting renewables. In the 70's, when congress was enacting PURPA, NH was on the forefront. Currently, NH has wood plants, small hydro, wind, biomass, etc. RPS laws in NH, and RGGI, have helped spur competitive interest. There is also a smaller scale interest in promoting renewables. She noted that the legislature enacted legislation in November 2009, to provide service options to its customers so that customers can pay a bit more for their power so long as they were receiving renewable energy.

Susan noted that there are important ways that NH has shown that it is incentivising renewable support but in order to bring more projects online, developers need more certainty. Having processes in place are very important, funding certainty is also very important and being able to figure out what it takes to bring good ideas into fruition. Having knowledge of the siting process is also important. Many developers think that siting takes far too long. The average amount of time that the siting process should take is 10 months, but in one current case, it has already taken 20 months. Developers need to know how long it will take to break ground and when they will be able to get their certificate. As legislators and policy makers, these questions are very important and we need to take these timelines into account. The legal process can sometimes lead to uncertainty for developers and there is much uncertainty as to how to ultimately interconnect with distribution companies. Paying for interconnection is a tough nut to crack.

Susan noted that nobody really knows if we can meet our 25% reduction goal by 2025. Policy makers and implementers need to keep these goals in mind. 2025 is only 15 years away. It is very difficult to say what technologies will emerge 15 years from now; we will need to stay tuned.

Gary Long, President and COO of PSNH – When asked whether the 25 by 25 goal is achievable in New Hampshire, Gary noted that it is far too low of a criteria to meet the goals of the state/region/world. But on the other hand, it is far too high for what is currently going on within the State. He noted that RGGI, RPS, NH's Climate Action Plan, and 25 x 25 are all great goals, but some will easily achieve these goals, and others will find it very difficult.

In regard to the Renewable Portfolio Standard, he noted that when focusing on Class I and II sources, the current qualified resources in NH equal 500,000 RECS per year. But the

requirement for these 2 classes under RPS is approximately 2 million RECS per year, a 4x increase. Right now, we have less than 100 kW in solar generation. By 2025, we need 30 megawatts, which amounts to 300 times the amount of solar that we have today. He noted that we must appreciate this enormity. It is not the goal of state policy to build up an ACP fund, because that would mean that fewer projects are getting done.

Gary also noted that what happens regionally is very important to NH. There would be a 13 gigawatt hour shortage by 2025 if we keep the way we are now. This is just for a 25% reduction, if you needed an 80% reduction as the Climate Action Plan suggests, you would have to multiply all of these figures by 3. So, the renewable energy markets are not looking good right now. He stated that we have quite a challenge ahead of us. Siting, financing, economics, a costly and time consuming regulatory processes with unpredicted outcomes, and adversarial confrontations with new programs and policies are all. We will never meet our goals if we continue this way. He urged state agencies and the public to show more support and stop opposing each other, or we will never make any progress. He also noted the importance of defining what the tolerance is for pricing increases for providing renewables and creating performance incentives for companies who exceed RPS guidelines.

Steve Walker, New England Wood Pellet – New England Wood Pellet is the largest manufacturer of wood pellets in the Northeast.

Steve noted that one of our greatest challenges is attaining a fundamental understanding of energy. Many people may not understand the difference between energy and power. Another difficult problem is that people, consumers, and businesses, all fear change. He noted that the government (state, federal, etc) is highly involved in energy, far more than most people realize. Energy is an old industry and by far the most regulated, in his opinion.

He noted that there are some fundamental problems that need to be dealt with. For example, by definition, new technology is never really new. It takes years and sometimes decades to convince government how new technology works and by the time it's approved, it is no longer new technology. We are also dealing with very old regulations. These are unintended consequences that are now blocking these new technologies.

He noted that he just returned from Austria which is home to some of the most efficient technologies currently available. Less than 2% of these technologies are legal in the USA. He noted that electricity, transportation and thermal are currently our 3 biggest energy sectors. Thermal is the biggest in most of Europe, and the largest in northern New England as well.

He also cautioned micromanaging something that the state does not completely understand. When the state approves one technology, then it may be suppressing another. He suggested that the government lay out prices, define "clean", take risks, focus on the end goals, and stop dictating how to get to them. He also advocated for setting a fair stage, allowing companies to fairly compete, and keeping rules and regulations in place in order to preserve the interest of the general public. He also noted the importance of trying to reduce the number of regulatory agencies that these companies currently have to deal with from approximately 40 regulatory agencies, to maybe 1 or 2 agencies, for administrative efficiency.

Chairman Ober asked how to balance the public's tolerance for paying more to the public's basic energy needs.

Gary Long noted that the New England market is not driven by NH. We wouldn't have a market in New England without Massachusetts. It is the leader. But it is a highly volatile and

unstable market. This is a risk factor and anyone, and the market could collapse at any time. He noted that we are actually better off having a shortage than an excess.

Susan Geiger asked what Scott Brown and New Energy Capital look for in the projects that they finance. Scott said that they look at long term contracts and utilities that make interconnection relatively quick and easy. He noted that NH doesn't have enough sun to make it economically viable for solar projects; that there is enough wind but not in enough areas, there is enough biomass, but it all depends on the value of the Canadian dollar, wood prices, prices of fuel, etc. Biomass projects can quickly go from attractive to uneconomical without stabilizing wood prices. He noted that they would consider investing in a wind project in NH, but that the market is too volatile for the other markets. He also noted that he is a supporter of nuclear energy for being the safest, cleanest form of energy that we can safely use to replace coal.

Rep. Jim Garrity noted that the legislators who drafted the RPS bill thought it was a success because none of the stakeholders were happy and that RPS intentionally picked winners and losers and then ranked the winners and losers by class. He asked whether that should be fixed, reversed, tweaked, or generalized.

Steve Walker noted that the state had to do something, so he stood by his support for the bill. He said it is a mistake to put a number on certain industries because you are ultimately hindering innovation and technology. Flexibility is really important. We need to work toward a bigger goal. He noted that Sweden has an amazing program in which they put a price on all emissions - lead, carbon, etc., and then let the market work it out.

George Gantz noted that nobody is talking about the world energy markets. When RPS was passed, we were looking at \$150 per barrel of oil, now it's more like \$75. How is this going to affect the development of renewables? Should this change our thinking about our 25 by 25 goal?

Scott Brown said that he had no idea. Over the past 10 years, it has been a relatively steady increase. He thinks the competitive position of other forms of energy will be the driver. He said that the important question is how we take the benefits that renewables provide and factor in the volatility.

Dick Henry – noted that what we are really looking for are carbon reductions in any way we can get them. The idea of a feed-in tariff for carbon reduction is very interesting and would solve many problems. This would allow us to take a least cost solution and it could set an upper limit on what the real cost of energy would be. He asked Scott Brown to explain how he saw a feed-in tariff working for carbon reduction and how could we incorporate an alternative compliance program. He also asked him if New Hampshire had a feed in tariff, would it be an attractive state to finance work in.

Scott Brown said that if NH had a feed-in tariff it would absolutely be an attractive state for financing in. The feed-in tariff may be more politically appealing than a tax, although it is very much the same. You could tax heavily and then rebate back to the cleanest provider. We need to look at overall energy, including transportation, solar hot water, thermal, etc. He also noted that we could grandfather in projects that have already been built.

Ben Frost thought it was interesting to define "clean" and "renewable" and asked how the government should take risks?

Steve Walker noted that all change is a risk in politics. For example, they have a boiler which is made in another country that is highly efficient but incompatible with our codes. Why can't they do it? It is too risky. It's easier to stick with what we already use. He noted that in the legislature, he sometimes sees a willingness to go for it, but some state agencies are hesitant to change. Ultimately, nobody wants to be the one to make that final decision and it takes a lot of time, money and risk to convince them otherwise. He said he doesn't know what would help politicians, legislators, agencies, and utilities to take more risks, with the exception of education. But, even education takes time and money, and that cost ultimately gets passed on to the ratepayer.

Eric Steltzer noted that feed-in tariffs are generally focused on electricity. He wondered if Scott was aware of a feed-in tariff which is carbon based.

Scott Brown – noted that he is not aware of one.

Bob Berti noted that he believes that the statement Scott Brown made regarding Biomass in North Country being very volatile is incorrect. He stated that wood prices have increased at approximately 1% per year. Diesel prices and pulp demand caused some volatility for approximately 9 months some time ago, but there is a substantial amount of biomass in both the North Country and the Southwestern part of the state.

Will Abbott noted that in 2008, Congress adopted a biomass crop subsidy and wondered how an investor looks at this.

Scott Brown noted that it would be look at as a net positive because it provides a great short term economic benefit, but you can't be sure that it will be there in 2 years, let alone 20 years. ARRA funding, on the contrary, is a capital subsidy so that is very different because you know how much you will be receiving and how long it will last.

Farrell Seiler – noted that it was said that to meet the 25x25 goal, we would need to reduce electricity consumption by half and meet 20% of that amount by using renewable sources. He asked Scott how we could do that.

Scott Brown stated that the simplest and most rational policy would be a carbon based feed-in tariff, or carbon tax. The tax money should then be rebated back to consumers in some way.

Dick Harris wondered how, where and when could we get these regulatory agencies which are opposed to new technologies to attend these meetings and listen to the issues that we are discussing so that we are all on the same level.

Steve Walker noted that he wasn't sure but that we need to get a lot of smart minds on the same page and not fighting each other. He noted that better plans need to be developed, and not by agencies or politicians. Developers should be coming up with the plan.

Chairman Ober noted that many regulatory agencies have representatives attend EESE Board meetings monthly.

Susan Arnold noted that one aspect that seems to be missing in this discussion is the idea of promoting renewables while also protecting our natural resources. She stated that as the EESE Board and the State looks at the issue of renewables, they need to ensure that the

resources we desperately need to protect, are not hurt in the promotion of unsuitable projects.

Susan Geiger stated that we currently have in place (since the 1980's), a thorough and comprehensive process for looking at siting and environmental concerns for new projects. She thought that the state has done a great job at providing this framework and does a good job at looking at environmental issues.

Gary Long urged everyone to think about if 100% of their electricity came from renewables, how would they think differently than they do today? Would their policies and spending habits be the same? If you look north to Québec, they are 97% renewable. If that were us, what policies would we have and how much money would be spent on efficiency?

Steve Walker noted that New England Wood Pellet spends a lot of time and money in making sure that they don't harm the environment. When dealing with the cost of renewables, they have received less in subsidies than what they have spent trying to get them. They are making it work without any real outside money. He noted that renewable projects cost money because you have to go in and change things, pay high interest rates for risky business, etc. All of that will go away one day and mass production of units will eventually come and lower costs. He disagrees that using renewables will be expensive for our economy; and he believes that it will be cheaper as time goes on.

Scott Brown noted that we need to make decisions on the basis of whether or not the individual decision is bringing us closer to our ultimate goal. Consumer protection choices in looking at funding amounts are almost always just short term pressures and long term goals can almost always compete with short term pressures.

Chairman Ober called a short break at 11:12 a.m. The meeting reconvened at 11:34 a.m.

4. GOALS WORK GROUP

Chris Skoglund and Gil Gelineau presented a [handout](#) and [slides](#) to the board which updated them on the work of the Goals Work Group.

The slides covered topics such as:

- The charge of the Work Group
- The baseline Change of the Goals and Targets
- Revision - Language of Building Goals and Targets
- Revision - Alignment of Targets
- Overarching Goals - economy Wide and Building Sector Goals and Targets
- New Construction and Residential Retrofit
- Commercial, Industrial and Municipal Retrofit
- Issues/Next Steps

It was noted by many that these projections are extremely intimidating to look at but also motivating at the same time, so it is important to note that we are not dictating anything and this is not a mandate, it is a work plan of targets to work towards.

The board voted on adopting the targets provided for in this presentation. A motion to approve the targets was made by Mike Fitzgerald and seconded by Rep. Jim Garrity. All were in favor.

5. COMMITTEE REPORTS

A. Energy Efficiency and Sustainable Energy Delivery – Dick Henry

This subcommittee has not met since the last EESE Board meeting but will be scheduling a meeting for April 29th or 30th and it will be posted on the EESE Board website.

B. Outreach and Education – Beth Fischer

The next subcommittee meeting will be held on April 19, 2010 from 2:00 – 3:30 p.m. at the PUC. Beth asked that the utilities be sure that they have a representative at each meeting, if possible. Contact [Beth](#) or [Meredith](#) if you would like more information or if you would like to join. This subcommittee will have a proposal/work plan to the EESE Board for the May meeting.

C. Municipal Programs – Eric Steltzer for Rep. David Borden

This subcommittee has met, and has established a road map for their work. They are now trying to determine what steps to take next. They are working closely with the Local Energy Committee work group and many more conversations will be had. The LEC and Municipal Programs groups will overlap their meetings so to tie together the work of the 2 groups and provide dual updates to the board.

D. Beacon Communities – Dick Ober

This subcommittee has met and will meet again on April 22, 2010 from 9:30 a.m. – 11:00 a.m. at the NH Charitable Foundation. They hope to know by then whether the Federal grant proposal has been awarded to NH.

6. UPDATES

A. GREENHOUSE GAS EMISSIONS REDUCTION FUND – JACK RUDERMAN

Jack noted the [Notice of Grant Opportunity](#) for this program was released on March 30th. The PUC is working on the RFP and it will go out as soon as possible. He also sent out a [progress update](#) and [summary](#) of some of the projects funded last year. The summary focused on the projects impact on job creation and retainment, job training, and loan funds/financing.

B. RENEWABLE ENERGY FUND – JACK RUDERMAN

The PUC has been very busy working on this program. To date, the PUC has received 282 applications requesting \$1.61 million in funding and 812 kilowatts in renewable generation.

The PUC is now focusing on the residential solar hot water program. There has been a technical session and a public hearing on the program. Since then, a [draft application](#) has been posted to the website. The deadline to get the program up and running is April 21st. The fund will receive \$500,000 in federal stimulus funds and that figure will be matched by funding from the renewable energy fund.

The next project the PUC is working on is the wood pellet whole house rebate program – a memorandum of understanding (MOU) with the Office of Energy and Planning has been

executed and is going to G&C next week for approval. Then a docket will be opened and hearings and technical sessions held.

C. ARRA FUNDING – ERIC STELTZER

The [Home Heating Systems Rebate Program's](#) start date is April 19th. Applications will be available on www.nhsaves.com and the OEP website. There is a lot of interest in this program. The #1 phone call being received by OEP is regarding this program. There will be a press release on April.

The number of homes weatherized in NH has increased 25-30% from last month. Approximately 781 homes have been weatherized and a lot of progress is being made. OEP is about 10-15 homes shy from getting the next distribution of funding from DOE and NH has ranked 11th in the country for its progress in getting their homes weatherized so to meet the requirements for the next round of funding.

7. 2010 LEGISLATION

At this time, most House Bills are in the Senate and Vice Versa. There were 2 bills in particular which were discussed at the meeting:

[SB334](#) – establishing a committee to study methods of encouraging the installation and use of small scale renewable energy resources by homeowners and businesses and relative to investments in photovoltaic renewable energy projects. There will be a Science Technology and Energy Committee hearing on this bill next week. The status of the bill can be found [here](#).

[SB323](#) – requiring the public utilities commission and the EESE Board to study certain energy policy issues. There will be a Science Technology and Energy Committee hearing on this bill next week. The status of the bill can be found [here](#).

Charlie Niebling noted that the EESE Board should try to come up with a way to create an opportunity for people to bring forward their ideas and test them before going before the legislature, which can sometimes be adversarial.

Meredith Hatfield agreed and thought that maybe the board could discuss the barriers and variables of setting up a forum such as that at a summer EESE Board meeting.

8. ANNOUNCEMENTS

Meredith Hatfield noted that [HB395](#) requiring utilities to offer renewable energy service options was passed last year and that the utilities are bringing their proposals before the PUC. The PSNH program has been approved and Unitil and National Grid have also proposed programs which will hopefully be up and running soon. She reminded everyone that this was one way that we could make a change with our wallets and that to receive 25% of your energy from renewable sources, the impact on your bill would only amount to less than a penny.

Beth Fischer – The [April 2010 Build Green NH newsletter](#) has been released. The fall trade show will be held in September and will focus on raising the bar in NH “Green” Construction. On May 25th, from 7-9 a.m. will be a workshop to demystify the national green building standard and the energy star program. There will also be an upcoming 6-week ‘boot camp’ for

contractors to help retool their businesses for energy efficiency and weatherization work. Contact [Beth Fischer](#) for more information.

[Charlie Niebling](#) reminded everyone of the upcoming [2nd Annual Heating Northeast with Renewable Biomass](#) conference on April 27-28 in Manchester, NH.

[Eric Steltzer](#) announced some staffing changes at the Office of Energy & Planning. Joe Cooper has been hired and will be in charge of the Energy Assurance Program and unfortunately, Kate Vaddas has resigned and will be leaving OEP next week.

[Julia Dundorf](#) reminded everyone about the May 5th conference regarding [Financing Solutions for Renewable Energy Projects](#) at the PSNH Energy Park. Also, the Local Energy Conference is currently planned and if you would like to exhibit at the conference, contact [Julia](#). She also noted that the Energy Project Connector program will be soft launching soon.

[Scott Albert](#) noted that effective April 1st, all new construction (anything that requires a permit) in all sectors, will now need to meet a higher energy standard for approval. GDS Associates in Manchester will be offering 7 upcoming training sessions targeting engineers, contractors, architects, etc. NH is identified at one of 10 places to watch in the country for this type of activity. This new code will be 18-22% more efficient.

[Laura Richardson](#) updated the board regarding the Enterprise Energy Fund and noted that the initial inquiry process has started as of March 15th. Many businesses have been inquiring about this program which begins with an energy audit. She also noted that the North Country Transmission Commission has met and is working on choosing a consultant to provide cost allocation information on the project. She noted that there is a lot of great stuff on the horizon, such as the Green Launching Pad, in which 73 proposals have been received and 10 proposal chosen to provide more information for possible pursuance.

[Chairman Ober](#) handed out a [letter](#) from Susan Arnold, Director of Conservation at the Appalachian Mountain Club urging the Board to balance its work with renewable energy development with natural resource protection.

The next meeting will be held on May 14, 2010. All subsequent meetings will be held on the 2nd Friday of the month at the PUC, unless otherwise noticed.

There being no other business to come before the board, Chairman Ober adjourned the meeting at 12:36 p.m.
