

# Northern Pass

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## Executive Summary

Northern Pass is a proposed transmission project that will bring up to 1,200 MW of electricity from Canada through New Hampshire to the New England power grid. The electricity will be coming from Hydro-Québec and will be primarily hydro electricity. The route will extend approximately 180 miles from the Canada – New Hampshire border in Coos County to Franklin, NH and terminate in Deerfield. The route will use approximately 140 miles of existing right of ways for current NH power. Some new right of ways will need to be added, primarily in the northwest part of the state where the power will be entering New Hampshire.

The opponents to this project have two main issues; the power is not needed and will not be used in New Hampshire and the transmission lines that are required throughout New Hampshire will destroy the landscape for residents, tourism and animals.

The advocates see a need for additional renewable electricity in New England and Hydro-Québec has the infrastructure to provide the electricity with expansion capabilities if needed. The project is expected to create jobs and lower electric bills.

There are many groups opposed to this project and have voiced their opinions loudly on radio, in the legislature, in town meetings, through print and online media and with signage throughout northern New Hampshire. They have valid criticisms of the project from dependence on another foreign source of energy, ruining pristine views of the New Hampshire landscape, of Northern Pass LLC not looking closely enough at options other than PSNH's existing right of way's (ROW).

Northern Pass Transmission, LLC also has some valid reasons for moving forward with this proposal. New England needs more power and this is one way to provide that power, New Hampshire's Governor Lynch set up a committee called NH Climate Action Plan to discuss climate change, one of the sixty seven solutions approved in that committee was to import more hydro and wind power from Canada. This project is a direct result of the committee's call to action.

New England needs more energy, has made commitments to reduce carbon emissions and dependence on fossil fuels. This project will meet both of those objectives. However, Northern Pass should look further into the suggestions provided by the opposition. Both sides are looking at information such as underground burial but have very different data. A solution would be to have a third party look at the options with both sides to see if there is an option other than using the existing ROW's owned by PSNH and adding 180 miles of higher towers.

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## Introduction

Northern Pass is a proposed transmission project that will bring up to 1,200 MW of electricity from Canada and into New Hampshire. The electricity will be coming from Hydro-Québec and will be primarily hydroelectricity (98%). The route will extend approximately 180 miles from the Canada – New Hampshire border in Coos County to Franklin, NH where it will switch from a DC line to AC and terminate in Deerfield. The route will use some of PSNH's existing right of ways for the existing power lines and some new right of ways (ROW) will need to be added, primarily in the northwest part of the state where the power will be entering New Hampshire and no transmission lines currently exist.

Hydro-electric power is one type of renewable energy. Hydro-Québec currently generates more than 40,000 MW of electricity and will sell 1200 MW to NH. NH has been using hydro electric power since the 1800's with the mills in Manchester and paper mill in Berlin. 7% of US power is created by hydro-electricity, compared to world average of 19%, China, Canada, Brazil then US are leaders of hydro-electric power.

## Hydro-electric power

Hydroelectricity provides approximately 16%-19% of the world's electricity and about 7% of the world's renewable energy. It is most prominent in the northern hemisphere with more "ups and downs". Put very simply hydro works in this way; a pool or reservoir of water is located just before a height drop, as the water falls it turns turbines which go through coils and produce electricity, the water can often be used again by power plants further downstream (if more exist).

Pros:

- No fossil fuels are used in production
- No greenhouse gases (GHG's) are emitted during production
- Water is free
- Rain renews the source of power
- Reliable technology and inexpensive operations and maintenance costs
- Can ramp up and down quickly to meet demand
- Can be stored
- Proven technology for hundreds of years

Cons:

- High initial capital investments
- It is dependent on rain
- Often impacts fish, wildlife, water and local people

## Renewable Energy in New Hampshire

In August of 2006 Governor Lynch of New Hampshire passed a bill requiring New Hampshire to have at least 25% of electricity generated by renewable sources by 2025. Renewable energy sources are considered biomass (wood, landfill gas, methane, ethanol and biodiesel), hydro, wind, solar and geothermal. They are considered renewable because they do not produce greenhouse gases while generating electricity. The reason for using renewable energy is to decrease dependence on fossil fuels such as oil, gas or oil, diversifying energy use, reducing greenhouse gases and energy costs. This goal uses a baseline year of 2004 as that was the latest complete data the

state had when the bill went into effect. In 2004 about 6.6% of the energy came from renewables and is broken into three categories, electricity, heat and transportation, each category should be 25% renewable. In 2004 electricity was only 10.6% renewable, heat was 9% renewable and transportation was 0% renewable. The renewable resources that New Hampshire used in 2004 were comprised of hydro, wood, and landfill methane. Since that time a 24 megawatt wind farm has been put in operation in Lempster, NH. This goal is in line with many other states, the 'big 3' car manufacturers and many other organizations. The unfortunate fact is that one can't find information on how it will be accomplished, at least in New Hampshire. However, Governor Lynch then created a committee that began in 2007, completing in 2009 called The New Hampshire Climate Action Plan and suggestions coming out of that conference were tax breaks and subsidies, de-centralizing electricity, create quicker and easier process for renewable generation projects, allowing regulated utilities to build renewable generation, importing hydro and wind energy from Canada, stricter standards on emissions, smart meters, local energy, creating a loan fund for people who want to borrow money for renewable projects, and pay as you drive insurance.

A biomass plant in Berlin (Burgess BioPower) began construction in October 2011, there were issues as NH has to meet goals for renewable portfolio standard (RPS), to meet the 25% by 2025 legislation and PSNH was going to cancel the agreement with 5 existing biomass plants they currently purchase power from as they don't meet the RPS criteria. PSNH was going to purchase all biomass from the new plant in Berlin. The 5 existing plants and with help from local government were able to review the existing agreements and allow them to move forward for the time being. The Berlin plant will be 75 MW, cost \$275million to build and will be producing electricity by 2013. The Public Utility Commission (PUC) initially said no to PSNH purchasing power from Berlin as they would be paying too much for the power and charging customers too much.

New Hampshire is also increasing the wind production in the state, a development near the Balsams Resort in Dixville Notch has been completed and is almost ready to go online and another wind farm in Groton, NH has been proposed and currently being supported by the local community.

### ***The Future of Renewable Legislation***

Current legislation is on the table that will require 80% of electricity to be renewable by 2035. Right now this looks like it could be approved by congress if electric rates won't increase by more than 5%. This will be discussed on May 17<sup>th</sup> in the Senate Energy and natural Resources Committee hearing.

### **The company**

Northern Pass is a project is owned by Northern Pass Transmission LLC, jointly owned by Northeast Utilities Transmission Ventures, Inc. and NSTAR Transmission Ventures, Inc. When the project began NU Transmission Ventures, Inc., a subsidiary of Northeast Utilities who also owns Public Service New Hampshire (PSNH) had 75% ownership and NSTAR at 25% ownership. On April 10<sup>th</sup> a merger of Northeast Utilities and NSTAR was completed and NSTAR is now a subsidiary of Northeast Utilities, making the project fully owned by Northeast Utilities.

### **The project**

Northern Pass will build and maintain a high voltage direct current (HVdc) transmission line for approximately 1200 MW from Des Cantons, Quebec to Deerfield, NH. The route is approximately

140 miles of direct current transmission line from the border through Franklin, switching to alternating current at that station and terminating in Deerfield in another 40 miles. In Deerfield it will connect to the existing grid providing power to New England. The line will be approximately 300kV from the Canadian border to Franklin and approximately 345kV from Franklin to Deerfield. The tower heights will vary on the route, upon entering NH to Groveton a new ROW will be constructed and the typical tower heights are expected to be 85-90 feet. From Groveton to Franklin Northern Pass will use existing right of way's that belong to PSNH but new towers will be constructed and will vary from 80-95 feet. From Franklin to Deerfield, Northern Pass plans to continue use of the existing ROW belonging to PSNH but will install 90-110 foot towers due to the narrower ROW; there may be an issue due to the proximity to the Concord Airport. If that doesn't pass, a new route for eight miles through Concord, Chichester and Pembroke will need to be constructed. The reason for adding new towers when using an existing ROW is to follow the National Electrical Safety Code which has rules for distance between electrical wires and the Northern Pass wires will carry a much higher voltage which requires them to be further from other lines and people. The location in Franklin is important as that is where the current from Canada will be converted from AC to DC so that it can be used. The project will be operated by ISO New England, who operates the grid in New Hampshire.

No fees from existing customers will be required for the construction or transmission of the project, all costs will be recovered from the cost of energy. Hydro-Québec has been providing energy to New England for years and will continue the same reliability, competitive prices, 1200 construction jobs, an increase in annual property taxes by \$25 million and a reduction of greenhouse gas emissions by 5 million tons per year. All construction will be completed using transmission towers. Northern Pass is scheduled to begin construction in 2014 and be completed in 2016 and is currently in the permitting stages.

The power will be provided by Hydro-Québec, the world's largest producer of hydroelectric energy. Currently they have 60 hydroelectric generating stations, 26 reservoirs and more than 570 dams. The hydro is 98% of their power the remaining 2% is from wind, thermal and nuclear – no fossil fuels. This will support the Northern Pass project without any additional infrastructure, according to the Northern Pass website.

## **Interviews**

This section will provide two interviews; the first with Martin E. Murray, an advocate for the project. He is an employee of PSNH, a subsidiary of Northeast Utilities and spokesperson for the Northern Pass project.

The second interview is with Heather McLean, Tom Mullins, and George Wright for the Alliance Against Northern Pass, opponents of the project.

### ***PSNH***

This interview was given by Shannon Donovan (S) who met with Martin Murray (M).

**S:** Can you tell me your role in the Northern Pass project?

**M:** I'm a spokesman for PSNH, because of the relationship PSNH has with the project, it's fallen to me to be the spokesman here in NH for the Northern Pass project so I'm the spokesman mainly for media and other projects.

**S:** How long has this project been underway?

**M:** The project was first floated to the FED in 2009 and it was in 2010 that we had enough approvals from the FED that we publicly announced what we intended to do with the project so I'd say 2-3 years.

**S:** So I know that you already had some permits that have passed and gone through but there's a few you're still working on?

**M:** We don't actually have any permits; we're required to get basically two permits so there's a lot of conversation that goes along with that. Basically we have a federal permitting process and a state permitting process. We're in the middle of the federal permitting process. As part of that there will be various agencies that will have to give their okay such as the Army Corp of Engineers and the White Mountain National Forest (WMNF) that's all basically part of the federal permitting process.

**S:** Is that the FERC one, Presidential?

**M:** What the FERC did, Federal Energy Regulatory Commission, the first thing that happened in this project, the developers of the project, Northern Pass, basically asked the FERC, to develop a transmission line and how to cover the cost, it's a little bit different from how it's been done before. If we do it this way, will you approve? And the FERC gave its blessing so it's a new idea but they've reviewed and approved it. We had to get that nod of approval, if you will, to move ahead. Once we got that approval Northern Pass worked with Hydro Quebec on an official agreement called the Transmission Service Agreement, TSA, eventually we had to provide that to the FERC, this is the official agreement and how we'll recover the costs would you approve of that, and the FERC did approve of that. It's posted on the website, December 2010 I believe, it was approved and it's on the website.

It's necessary to get what's called the Presidential Permit in order to cross the international boundary, it's during the FED process when a Presidential Permit is required, a single agency and it isn't always the same one, a single agency will be given the assignment of considering the Presidential Permit application. In our case it was basically assigned to the Department of Energy (DOE), so the DOE has an ongoing process now to consider the Presidential Permit application. Whatever agency is assigned to do that does that through the National Environmental Policy Act. This is the fed brochure (Exhibit 1) this is a long process and we're at this point (points to scoping process) so what DOE has said, it announced to everyone that Northern Pass wants the Presidential Permit and we have decided that it is necessary to issue an Environmental Impact Statement (EIS) in order to consider the application. So they announced that and currently we are in the scoping process that included public meetings that were held some time ago, we're still in the process of scoping which includes a comment period. At some point we're going to amend our application and we'll talk about that a little bit later, once we amend our application they'll take comments for at least another 45 days, they've said they'll have another public meeting. Then they'll go back to Washington, DC and they'll work on the draft EIS. Once they do that they'll have a public comment on the EIS and it might or might not include another public meeting but I think it does, once they do that they'll have the final EIS. Once we get around here (points to Final EIS on Exhibit 1) we have a whole other process at the state level that is just as comprehensive as the federal level and we haven't even started it.

**S:** Is that the Certificate of Site and Facility?

**M:** Yes, it's through the Site Evaluation Committee or SEC and that's just a NH process, we haven't even applied for that yet. You can't do them at the same time. If we did the SEC would say do you

have your Federal Permit and we'd say no so we have to have the finish line in site with the federal level before we initiate the state process.

**S:** And you said you'll be sending another amendment in for that?

**M:** Correct and you may be aware of this but I brought you a couple of things that you've probably seen - this was our initial area (Exhibit 2) the shaded area is our study area and we'd like to develop this project within this study area. As part of the process we had to propose a route, typically the feds like to see some alternatives if there are any areas where there's the possibility to go B instead of A. So everything you see in red were initial alternatives in other words the section going through the WMNF so because that is there - the ROW we proposed to go through there but what we said initially was here's an alternative if for whatever reason you don't want us to go through there here's a proposed alternative where there is no existing ROW at the alternative. What we found out as part of the scoping process in the meetings, there was an uproar about the alternate route, I forget the number of meetings, there might have been 8, but there was a number of public meetings and as a result of those meetings about a year ago, in April of 2011 we amended our application and we did two primary things; we acknowledged the comments we heard at the public meetings and we removed basically all of the alternatives. What we said was from the Groveton area to Deerfield we have existing an ROW, cleared land and existing power lines running we don't want to use the alternative or this one or this one (all red lines) so amend our application and take those off the table. We'd like to propose that we build the project just within the existing ROW that was the first thing we said. The second thing we said was basically from the Groveton area to the Canadian border there is no existing transmission line and I don't know how much you know about transmission/distribution lines but the distribution lines are basically the ones you see running down the street. But there are huge transmission lines that carry power from the generating facilities to that distribution system. There is a distribution system up in the north but there is no transmission line in that area. We had proposed initially a route with an alternative for that area. It was clear through the public meetings that the route we proposed most people did not favor so the second thing we said was in terms of that area we'd like to go back to the drawing board for that route, we'd like to work with the landowners, we'd like to purchase land or purchase easements with a right to build on some other properties find something that has low visual impact and has the permission of the owners. And the DOE said we'll keep the scoping period open until you come back to us with a new proposed route. Once you do that we'll keep the comment period open another 45 days, we'll have one more public meeting for the new route and then get to final EIS. That's kind of where we're at right now. We've removed alternatives so that we are focused on just the ROW for this area (no Row) we are working with landowners to purchase the right to build the line.

**S:** So how does that work if there is no proposal yet? Is it an agreement that if this passes we'll buy it, a P&S for a house sort of thing?

**M:** No, we would purchase the land so we'd own the land; if the project didn't happen then we'd still own the land.

**S:** For future potential?

**M:** Yeah we'd have it. There is no second project that's proposed. We're focused on this one but if we purchase the land or purchase the easement then we still have to get all the way to the end of the process to do it.

**S:** How far are you on that part?



**M:** We're doing pretty good, we're optimistic. Probably sometime this year that we'll be able to propose another route to explain where it is and to provide it to the DOE, as an amendment to our application and the DOE will take it up from there.

**S:** How much has, and I think it is probably that northern area, how much has that slowed down the process?

**M:** 6-9 months, we pushed the expected operation date up the line from 2015 to 2016 so probably 9 months and it was that and the comments and the activity in the legislature. There are a lot of folks who have garnered a lot of excitement and a lot of interest and you only get once chance to do this and you want to do it right. It was clear, hypothetically if people had been okay with initial route we'd be that much further along but we'd probably still be in the federal process although that much further along. We had to step back and take another look at it and it takes more time but it's the right thing to do. But we feel good about it, we're pretty optimistic that we'll be able to announce a route that meets the satisfaction of most people.

**S:** So there's been a lot of discussion on a lot of websites about property values not just the northern area but all of the transmission lines because they'll be higher towers or there will be towers where there weren't any. It was the REAL website and the latest article they posted not very long ago, earlier this month, said that you guys aren't even looking at the latest report by Chalmers on what he has said about transmission lines and real estate values.

**M:** Did you read it?

**S:** Yes, well I skimmed both of them.

**M:** There's a side to it.

**S:** I did open the longer one I know that people will pull out the lines that are relevant to them.

**M:** We have looked at the Chalmers report and I think you have to consider the source, if you look at the headline "Northern Pass's Appraisal Expert Recants and Zaps Northern Pass" nowhere in the Chalmers report do you see anything about the Northern Pass expert recanting and zapping Northern Pass, it's just made up words. We looked at the Chalmers report and we're looking to try to talk to him, our examination shows that the extreme impact they cite here is basically two sentences in one paragraph on one page in a multi page report basically says pretty clearly that there is little to no impact on the land and the properties that they studied. But they did find some impact, I find it interesting actually that it backs up what we've said but really Shannon in order to make a proper judgment I think you really have to not look at a 30 year old line in Montana thousands of miles away but look here in NH. We had an appraisal expert here in NH look at property sales on an existing transmission line, here in NH, and it's posted on our website and I can give you the link if you didn't already get it. It basically showed that there really is no impact based on sales of property where there is property. There is one case that the property sold at more than the asking price. There was another property, and I'm saying this from memory but you'll see it in the report that the river is along the property border and the transmission line goes through the middle of the property, in the same direction as the river that property sold at greater than the asking price so here is a seller coming in purchasing a property, that between the structure and the river there is a transmission line. We've tried to take an honest look at the situation by working with an appraisal expert to see what has actually happened here in NH.

**S:** Do I remember correctly that the much of the property in that report was half the size of NH, well not that big, but large pieces of property, larger than in NH, is that correct?

**M:** Yes, that is correct. Montana is much different than NH, large expanses. But the other thing interesting, from memory was the existing transmission line was built in the 1970's and where they found the impact that was detailed in there, sometime in the 1990's, so the transmission line had

already been there for 20 years, someone decided to build a subdivision which abutted the transmission line, a developer decided to build a subdivision and sell properties. Basically the properties closest to the line sold for a little bit less than properties further.

**S:** I think I read that anything with 200' or something, sells for less.

**M:** You and I aren't experts in property values but would that surprise you that the closest sell for less? And people bought them – they all sold. It was a negotiation, someone saw a value in this, they purchased it and they paid a little bit less than the property next door. There's nothing really surprising about that and again it was if you look at the total report the information that was treated in such an alarming fashion here (REAL report <http://responsibleenergyaction.com/pages/714>) was treated in really a minor way.

**S:** I don't know if you'll know the answer to this but the people selling their land or accepting easements on their land do you know if they're doing so because they believe in the project, financial reasons or I've read a lot that, before the election this year, eminent domain – they're just going to take it anyway, do you know what the reasons were or were they all different?

**M:** You might be able to talk to some of them and find out I could ask and see if I could get a name and phone number for you or depending how much work you want to do you could try to reach out to them yourself. I don't deal with the people directly, the real estate people do. For the most part I've heard that the transactions have been for a variety of reasons. People have land, they have the opportunity to sell it and they've made the decision to sell it. I'd never want to put words in their mouth so I don't know what their motivation was but I think you had a willing buyer and a willing seller so I think it's mainly one-on-one negotiations and people had to make a decision about what they wanted with their land, not all of this land is land that structures on it, wooded land, or farmland but not necessarily a homestead. But if that is something that would be helpful to you I can try to get a name for someone that might be willing to talk to you. If you're going to talk to someone like Mullins who is an adamant opponent it might be helpful to talk to someone who was a willing seller and talk to them about it. That is part of what all this might come down to is that once we have the property and the right to build here. You're still going to see some people who ... even if it comes down to what can one person or one company do.

**S:** All I've been able to find online is someone saying Joe Schmoe sold for this reason but I can't find anyone saying I sold for this reason although maybe they don't want to get harassed by people who are very loud against it.

**M:** Again I don't want to put words in their mouth but I think there are some angry people who are saying things that aren't true that are railing against this project but I guess you'd have to consider it from the seller's point of view. They made a sale and are happy with it there is no need for them to get into a public squabble, why at the risk of people. There have been things written in the papers and names have been published, in fairly clear language asking if people should even purchase if they are a store owner, why should we even give them business and support them if they sold, it's hard for people. They made their own decision and have a right to do what they want with their land, obviously. But some people want to punish them and it can be difficult.

**S:** So with the project I read that it should lower residential and commercial rates? I didn't see if there was a % or what that should be.

**M:** If you go to the TSA, that is on the website, there is a study that is over 700 pages but within that 700 pages is a 50 page economic study and within that is a couple relevant pages that was a study by Charles River Associates a think tank out of Boston, in that 50 pages they basically, Shannon, documented what would be the impact in terms of emissions of carbon and reduction of energy prices. There are very specific numbers in there in terms of anticipated reduction of the cost of

energy in New England and by state and also very specific in terms of reductions of emissions. The one unknown is what if the current per MW of energy is at \$x in the study they documented that suddenly there was a source of power and it doesn't matter what source it is, that was priced less. They can anticipate how much less you'll have, that amount of money, the unknown since this isn't going into generation until 2016 is how much x will be at that time. No one knows but you know that the new source will be less and what % less. They are able to document, check the study since this from memory. They documented savings \$220 million and \$225 million, and in NH \$24-\$26 million per year. Basically that is the lower wholesale price of energy. You and I will see that because someone is buying it wholesale when wholesale is less, we can buy it less. Just like a farmer, when the cost of milk goes down the wholesaler pays less and we'll buy it for less. So they are able to document how much savings, and just as importantly they're able to document how much savings in carbon emissions it's kind of the same thing - CO<sub>2</sub> if they are at a certain level today where will they be at a later time? But we know what the sources of carbon are today and if you suddenly introduce a source that is a reduction of carbon you can reduce that level and they are able to do that calculation what you'll see in the report is they can calculate up to 5 million tons of carbon emission per year. You asked in one of your e-mails why this project even being proposed some of the proponents say we don't even need the energy.

**S:** Yes, it's going out of state.

**M:** That's another thing and I can talk to. We have enough energy if we only need enough energy to keep the lights on and you're proposing more there are a couple more reasons. If we can get cleaner energy it will be cleaner and save money it will be good. The demand of this energy, Shannon, in this state comes specifically from the desire, really the demand to lower carbon emissions. The entire country and certainly the northeast, certainly NH have actual goals to lower carbon and lower greenhouse gases and global warming in NH, I don't know if you're aware there is a task force put together by the Governor, the Climate Action Plan.

**S:** Is that 25% by 2025?

**M:** No, that is the Renewable Portfolio Standard. You're referring to the RPS and we can talk about that. The CO<sub>2</sub> in the Governor's climate action plan has a goal by 2050 of reducing carbon emissions by 80% compared to 1990 levels, basically the Governor put together a task force with lots of individuals representing industry, the president of our company was part of that task force, the Forest Society who are one of the opponents of this project were part of that task force and they got together over an 18 month period. They met lots of smart people in one room and they came up with this. Then they had to come up with how are we going to get there? How are we going to do our part to reduce carbon emissions by this much, that's a lot? They came up with 67 recommendations, all sorts of things; use less energy, less specific, and one of the recommendations was to import hydro and wind power from Canada, that's pretty specific and the task force recommended that, including The Forest Society, Will Abbott voted for that recommendation. This proposal in part was an answer to that recommendation there's our task force with a bound copy - we're going to import more hydro and wind power from Canada. This is a proposal from a private developer to do just that and that's where this comes from that's why this is being proposed if this line ends up hooking up the New England power grid it will result in a reduction in carbon emissions and it will do so while saving money and that is really significant.

**S:** With this coming in, I've seen a few articles just recently about the power plant in Bow, this time of year is slower and natural gas is so much less expensive and the plant is down for cleaning etc. and you're using natural gas, now natural gas emits less carbon than coal plant, correct?

**M:** Correct.

**S:** So what will happen when/if Northern Pass comes through – for example will you get rid of it?

**M:** Consider a bucket of energy which is basically how the lights stay on here in New England. You should look into ISO NE if you haven't already. They do 2 things; for decades they existed, they used to be called the New England Power Pool, simply to keep the lights on, while you and I are talking right now there is a certain amount of energy that is needed to be produced in order to keep the lights on, if I switch the lights on we need more energy and they can probably handle it, but the use of energy during the day changes, flat overnight, increases as people get up and take showers, go to work needing more energy and go home and using more energy to wash the dishes, turn the TV and lowers as we go to bed. So we always need some energy so some generator plants never shut down they're always needed but let's say the nukes are on, hydro station is on, some of the gas plants are on but now you have a lot of energy to consume you need more - maybe gas, coal, oil, we have some emergency generators that are really big that only run maybe two or four times a year, they're huge and run on jet fuel they are expensive, they are about five hundred times more expensive than a gas plant but sometimes you need it or the lights won't stay on. So when you say what would happen? The bucket of energy is filled up first with hydro then nuke, then gas, coal, oil, etc. and depending on what happens it fills, ISO, they do two things they facilitate marketplace for transacting energy in here so the way they keep the lights on is forecast how much energy will we need tomorrow – load curve maybe tomorrow will increase if it is going to get hot and humid so suddenly we need more energy tomorrow. They tell the generators this is how much I need tomorrow – we bid by saying I can provide x # of kW at 4 cents then second bid x kW at 5 cents so they'll purchase the lower first but if they need the higher cost energy then everyone is paid higher amount. If the hydro and nukes bid zero, see what we do is bid zero for hydro, it's like free energy for us, it's just water and it's always running so we bid in zero and we get 5 cents that is how the market works. Most people don't understand that is how it works because it is interesting to know that it is pennies to keep it on, get market rate. Long way of saying if I bid at 5 cents as a coal plant, 1200 MW coal plant and they need it but tomorrow is another source that can bid less this 1200 wouldn't be used – it would be replaced with cheaper energy. That is how this project will lower cost and carbon emissions instead of having 1200 MW of whatever it is a mix of coal, gas and oil; you'll replace it with the less expensive of hydro – lower price and carbon. You also asked about the coal plant, it won't run unless it is able to compete economically, we think it will but it's already not running as much as it has in previous years. That's a combination of its price and demand. The price of natural gas generated energy is much lower than people ever thought it would be. But you can't tell me that is going to be the case in 6 months, 1 year or 2 years from now. You're studying energy so you're probably tuned into the debate on fracking, is this increased attention on fracking and the environmental challenges going to result in more regulations that will raise the price?

**S:** Or maybe outlaw it like they did in VT?

**M:** If they did that, if that supply of gas from fracking decreased or price increases you're suddenly going to see something like Merrimack Station operating more but again so long as you have Northern Pass 1200 MW.

**S:** How many MW's is Merrimack station?

**M:** About 400.

**S:** So it still won't compete with all of Northern Pass since it is 1200 MW.

**M:** The only thing that is also 1200 MW is Seabrook power plant.

**S:** Is that part of PSNH?

**M:** No.

**S:** Who provides the energy – I could only find 3 companies?

**M:** You're talking about delivery companies; they are split up by geography by happenstance. At some point someone strung wires in Keene and electrified them, and in Manchester, PSNH was formed through the purchase of other companies, (Keene, Manchester) little by little PSNH is more than 70% of state just like Concord is Unital and they are also big on the seacoast. National Grid has two areas so there are three. NH Electric Co-Op in rural areas they have a lot of space not a lot of customers – 4 main ones, there are 4-6 municipals like Wolfeboro they serve their own wire get power from our transmission lines, Middleton is another, I think Ashland.

**S:** But pretty much everyone uses your transmission lines since you cover most of the state?

**M:** Yes, all the transmission lines except one are owned by PSNH, you wouldn't want everyone to have their own. Another high voltage line on west side of the state comes from Hydro-Québec, through Vermont and Bedford, NH and crosses I-89 in Hopkinton and Warner to MA. That's been around since the early 90's. Our project would not be as big as that – it carries more power on bigger structures. Jumping back randomly to our conversation on property values if you really wanted to investigate that angle, look at Bedford with the line running right through it and see what the property values are, they have not gone down, they've gone up, property is very valuable. The existing line goes right through it.

**S:** So based on your statement that a line from Hydro-Québec already goes through the state why don't you guys tap into that existing line?

**M:** Yes, the best already published report on that was in the Union Leader in May 2011 they had the same question that you did; two guys wrote it I think Mike Cusineao was one of the reporters. They did a good job, they talked not only to us but to VT basically if you have an existing line the ISO has certain rules and regulations on how to build and a lot of the rules are based on electrical codes has to be certain distance. This transmission can't have another line. The only way ISO would allow it is if you constructed another line with a buffer in between, we found out quickly we couldn't put a line there. So we'd be talking about a project with more implications and more significant implications in terms of getting land

**S:** So it would be a larger ROW?

**M:** No, it would be a separate ROW if you look at line in Bedford you'd have buildings right up against it. We do have the north 40 and we don't have to widen it we can build within the existing ROW. We can fit within the existing ROW.

**S:** People are talking about the existing ROW, if I understand they want to bury the line since they don't want it higher, I believe you said it was too expensive, are there any implications more than expense. If you said okay, it's more expensive let's just do is it possible to do?

**M:** We don't think there is, when you ask the question about underground there are two; when we amended our application last April we touched on it, if you haven't seen that letter you should look at it. In the April 2011 amendment there are two ways to go underground the way it's always been done and the other a new fangled way that is just beginning to be explored so taking the former we simply don't believe it's economically or environmentally possible to do it the old fashioned way, the traditional underground way. It would drive the cost to such an extent that it wouldn't make it feasible; you wouldn't have the savings in dollars. It would make it unfeasible and the reason really goes to the environmental impact the way underground technology has worked you dig up the ground, it's a huge impact on the environment. To place concrete vaults in the ground, cable into those vaults, you can do it in some areas but when you talk about the granite state and going through the WMNF it just doesn't make any sense, how do you cross the wetland, with wire you put a pole on either side and just bypass it. If you came to that huge area of wetlands and there are

plenty, you can't go underground so we said to the DOE we don't think it makes sense and it is not part of proposal. The DOE could still come back and say even though you took the alternative off the table we want you to look at it, we want you to look at underground. The second aspect new technology, light technology, little impact not big, instead of the vault direct burial of the cable it is a new and emerging technology and we are honestly taking a hard look at it. But it's not proven it hasn't been used successfully for a project this size in terms of energy it hasn't gotten to that point yet. The area that it has in a test role is in Australia they put it in a flat area that has a relatively soft environment not mountains or granite, at a lower level of energy, in a more appealing environment. And that is being used, someday it might get to the point where it might be technologically feasible but we haven't seen any proof that this kind of technology can work for this project. But it isn't something we have completely dismissed but at this time we think we have a proposal that is sound in terms of reliable, economic, low impact environmentally. That does not have a lot of visual impact to hide the line if you will. So we think it is the way to go that makes the most sense.

**S:** What is the biggest argument?

**M:** WMNF 9 miles

**S:** You have a ROW there?

**M:** I don't want to speak for opponents but I think they'd say they don't want another line there. There would be another line but we don't have to widen it. There's one section of that 9 miles, there's  $\frac{1}{4}$  mile section that we have a ROW that hasn't been cleared, and we did indicate in our application that the last portion we'd like to clear for the entire width of the ROW. There are structures there now; I don't remember exactly what our plan is there you can see it in the application. I think we need to move it to one side and add another one. A little anecdote a friend told me, she was hiking and had to cross the ROW and stopped with other people to bird watch and the other people started bitching about the project. She explained that they stopped at that particular spot under the power lines because they could see the birds, just a little irony. The power line is good for some things. There is a diminishment in certain bird species but they thrive in this environment. In this habitat, ironies if for or against, certain rabbits and birds that thrive in that environment.

**S:** Can you tell me about the fees and how it works? PSNH owns ROWS and transmissions?

**M:** Yes.

**S:** Now Northern Pass will own new transmission lines in the PSNH ROW?

**M:** It hasn't all worked out yet, but yes, we would have to allow them to construct it within the ROW we would have to allow them.

**S:** With an agreement or something?

**M:** Yes but that hasn't been finalized. There are some people who say we don't have the right to do that, well maybe, that is something that has to be decided by the state but we believe we can do that. We either own the land or the easement in that entire area; we have listed that in our journal. We do believe that we have that right as PSNH or Northeast Utilities to allow Northern Pass to site there.

**S:** How would that work for Hydro-Québec if this goes through, Northern Pass building transmission line does Hydro-Québec have rights to it?

**M:** It's in the TSA, Northern Pass would own the new structures in the ROW, and it has nothing to do with Hydro-Québec until we grant them the authority to use them. We've struck an agreement written the TSA that they will have exclusive right to that for 40 years.

**S:** 40 years?

**M:** Yup.

**S:** Biomass that will use old transmission line?

**M:** Yes, the Northern Pass line to Franklin will be DC you can't tap into a DC line, you can in Franklin to Deerfield as it will be AC. The biomass is separate from Northern Pass and there is a loop called the Coos Loop that people refer to it as, there's a wind farm now tied in, right next to the Balsams. They had to build a transmission line to our line, and by law we have to ensure they are able to tap into the existing transmission line so that they can get their power to grid and biomass plant in Berlin will also have access to the loop. One interesting question is that once those two tap in, the line is maxed out so nothing else can tap in and people are talking about another wind farm to the west of the one at the Balsams, what are we going to do? It could be redeveloped bigger to handle it but who pays for that? The developers don't want to and you may run into the same arguments that some of the opponents have, we don't want bigger towers or wider ROW's for bigger towers. Right now you don't know if they have to go wider. Biomass would use the existing and is already planning to tap; it has been improved already but much more significant cost and impact if it needs to be upgraded again. Who wants to pay for it – under law when the next improvement needs to be made the newest developer has to pay even though the existing users will benefit from it. But newest guy will have to pay and the cost is high, several hundred million dollars. So there have been 3 big state committees that have studied this over the past 5 years that have discussed what to do about the Coos Loop. They've never reached any conclusions. We are unregulated so he'll make as much money as he wants but he'll have to pay for it, not you or I. Competing forces state says we want cleaner energy right here in NH and developers think it's great so you pay for it. That is what is amazing how little is happening. One of the benefits of Northern Pass is a way to bring a significant amount of renewable energy into the mix and you and I won't have to pay for anything to pay for that.

Northern Pass is not certified under current law under RPS, the state said by 2025 we want 25% of the energy you sell here in NH to be produced by renewable energy but the legislature might change it this week or next but since 2006 we've had a law that has 4 classes of renewable power. If you fit into 1 of these classes you are certified as a renewable energy provider. Hydro-Québec doesn't fit into any of these classes.

**S:** Why not?

**M:** Manchester plant doesn't meet the criteria; they don't fit into the classes. Class 1 is new wind and biomass and new methane. Lempster fits into class 1 the new biomass in Berlin and wind at Balsams is class 1. Class 2 is solar class 3 is existing wood or biomass and 4 is small hydro, less than 5 MW and fish ladders on it. I don't know if there is any hydro that fit this criterion for existing. We support class 4 from certificates from ME and MA but interestingly under new hydro we put in a new turbine in Berlin, an existing plant, same water but new the turbine is good and produces more power so the excess energy qualifies for class 4 but not the amount that used to be produced. The way we meet that 25 by '25 is they ask how much did you sell in MW or KW hours last year? Year by year they have a % class 1 sales had to be part of this in each category and increases each year. By 2025 the total will be 25% we can meet this in 1 of 2 ways, we find someone who is producing new wind, Lempster wind farm and do you have a req if it produces 1 MW in 1 hour and they can sell those reqs. I can go to marketplace directly or through a middleman, I am in the market for class 1 req the price is \$X and buy or not. At the end of the year I have to have the amount of req's

required if not especially with solar and req's are higher and the second way is make an alternative compliance payment (acp) if there are no reqs or if they are too expensive. The 1<sup>st</sup> is based on market acp is law the state has been telling the producers of the reqs what we're going to charge and they tell the renewable providers that price and hopefully they'll charge less. What we've been doing over the past few years to meet our obligations and I'm sure the other providers have too, by a combination of purchasing reqs and making acp's. When we make this payment that is a lot of money and it goes to NH and there is an office with the PUC that decides to do with it. They spent a lot on energy efficiency if you wanted to put solar PV on the roof they'll give you a rebate, used to be \$6-7,000 but now around \$3,500 from the state as a rebate. Ironically that money part of that was funded through acp but it doesn't count for class 2 because it isn't measured. Right now the legislature working on a significant redo of this. One of the things we'd support is to count that even if it is a rough measurement, we're paying for it, find a way to measure it. The hydro power plant in Manchester doesn't qualify for renewable energy even though it is been there since 1926.

**S:** I don't understand why not since it is renewable energy.

**M:** It goes to the policy it's not necessarily logical they wanted to ensure that it would be development of new solar but they ignore the primary development of solar in this state is the rooftop panels. The hydro I don't know why they did it that way.

**S:** I saw with the Berlin power plant you were buying existing biomass but you use couldn't buy those credits anymore and you can with the Berlin plant but they made a temporary change until the legislature looks at the policy.

**M:** Even though we have 6 existing wood plants I don't think any of them fit the class 1 or 2. They had to be clean if they emitted more than x amount of pollutants, they didn't fit and in order to do that they had to invest a lot of money and most of them didn't have it. A lot of people wanted them to keep running, they like the jobs, and the jobs in the forest but they couldn't sell their energy, remember the cost per KW. Where do they fit in energy bucket? Natural gas is driving down cost, the wood plants have a certain cost, demand is low, cool spring, and economy is not gang busters it's driven by demand we are at 2007 levels, we have flattened out. They are in a bit of a fix - long rps explanation.

**S:** If the state of New Hampshire makes state-owned ROW's; rail beds, highways, etc. available for buried transmission lines, will Northern Pass consider revising its project to propose buried lines or cables?

**M:** It is very premature to speculate as to what may happen as a result of the committee that was recently formed to study the possibility of creating an energy corridor(s) in NH. PSNH will be one of many interested parties that participate in the work of the committee moving forward. It will be interesting to hear the concerns of the State DOT, for example, on this issue.

**S:** As far as competition with Northern Pass; Champlain- Hudson and Northeast Energy Link (NEL) have you looked at that?

**M:** Champlain Hudson and NEL are very different not only in terms of the project but at the stage of development NEL has announced plan to tie into Boston with underground cables with light cable but they are light on the details as well. They said they might do it, but no details what is going to feed that, one thing they talk about is wind farms in Maine but those wind farms don't exist yet but there are a lot of questions where is this power going to come from. What about the transmission lines and significant amount of unanswered questions? No price is attached to it they had a much more modest plan announced that was overhead a long time ago and what my experts who have looked into this have told me is that this energy link has used the old numbers and plugged them



into the new project and haven't recalculated to say this is what it will cost. We're watching that but frankly it's too early. How much energy, we know that that technology is not advanced enough for our project it is too early to compare apples to apples. Champlain Hudson is further along they don't have an agreement with Hydro-Québec about getting the power. They've talking about going through Lake Champlain over some railroad beds and down the Hudson River. We don't have a Lake Champlain or Hudson River in NH, they have ability to go underwater of some size we can't do that, the infrastructure the vessel to lay that cannot be in Connecticut River in terms of size we can't fit the vessel or we would consider that. It's an interesting project as well, it's smaller than ours, it will be interesting to see if they can use light technology they are talking 1000 MW it may be creeping up there but not usable yet but we are looking at it. You called it competing, yes or no actual competing they would be Champlain Hudson would not be if they can get the power from Hydro-Québec, they are selling to specifically to the NYC market which is totally different.

**S:** Because Northern Pass will be going to MA and CT.

**M:** No, it will be going to New England so there are different power pools in different regions. New England has six states in one pool. One of the objections to our project which is totally displaced is that this energy won't come to NH, is simply not true. That bucket of energy is where all six New England states get their energy. So every single day NH draws from this bucket, we consume 10-11% of this 100% of energy that is size, we are small in consumption. Every day we consume 10-11% of this energy if we suddenly have this 1200 MW of energy from Hydro-Québec then it just goes in and something else comes out, we'll still be consuming 10-11%. It impacts us not only by the electrons turning on the lights but by driving costs down, it impacts us with the CO<sub>2</sub> that would otherwise be emitted in the region. People repeating that this is the reality of how it works, the other thing they say that is related to that NH right now we export energy.

**S:** I have read that.

**M:** That is what happens in every state every state is exporting into this bucket and taking from it. NH happens to have a big nuclear plant, 1200 MW, wind, hydro and compared to what is our potential generation of power perhaps it is double, they claim we are exporting it, the fact is that Seabrook has no allegiance to NH and they are selling that power, we aren't buying it they are selling it this marketplace and someone is purchasing it, it happens to be located in Seabrook but it could but going anywhere.

**S:** But doesn't it work that you basically draw from the closest power source, if you're in Deerfield you'd likely be getting power from where Northern Pass ends?

**M:** Electronically yes. That is kind of like two different things that is how it works.

**S:** If you look at it that way it isn't exported you are using it right here.

**M:** Yes, you are right. For example this wind farm that has been built next to the Balsams will be consumed largely in local area but they exist to sell electricity to VT, they struck a deal on paper that VT is purchasing its reqs. It is generating reqs and being sold to VT so there is the different marketplaces if you will/ My argument is that we absolutely need this in NH number one we would be consuming it goes into grid and we consume 10% and would have an impact on us economically and environmentally with CO<sub>2</sub>.

**S:** So I've asked you a lot of questions about the opposition to the project but I haven't read a lot about proponents to the project, are there a lot proponents that are just quieter?

**M:** I would say yes, one of the keys is a UNH study released in late January that no one paid for, it says UNH but I think it was called Granite Poll WMUR they do fairly regular survey's headline - the first question of three was about the legislature questions four and five were about Northern Pass

and other study was random it showed there was more support than opposition that support had grown compared to last year and that opposition and dropped modestly, not a lot, but modestly. That was really interesting we didn't know that study was being done. It kind of reinforced our feeling that people realized it makes a lot of sense to do it. The question is not whether it is a good thing but how to make it happen again if you could tell me that I can replace dirtier energy with cleaner energy and drive the cost down that is a good thing. But then you say how are you going to do it, not so fast make sure we understand that what is happening now, we've begun to one by one, to address the key concerns people have; eminent domain, Mr. Mullins who you're going to see screamed for months that we're going to seize people's land, even though we kept saying we aren't going to do that, we don't have to do it he kept insisting that we were going to and others did as well. Now there's legislation that basically prohibits eminent domain for this project so that concern has been laid to rest, there was a lot of concern early about the alternate routes, we've taken them off the table. There is concern about the route in the North Country, we haven't announced the new route yet but we've basically said ok you don't like the 1<sup>st</sup> route we'll find one that is more appealing. We are focused on addressing the concerns that people have. We know there is some solid support for the project, labor certainly appreciates it, there's going to be 100 construction jobs and expected 1500 jobs created all together as a result of this project, we know that government find appealing the fact that a steady source of revenue in terms of property taxes we pay. It will provide \$25 million to various communities at a time when taxes are going up and the tax base is going down. So we feel there is some good support and there are opponents that have loud voices who like to point out what they don't like about the project. We think we have some good solid support when we are able to demonstrate that we have a new route that the support of the underlying land owners we should be all set.

**S:** Do you have a timeline for when the route will be proposed?

**M:** We don't, we've made really good progress we haven't announced a deadline of when we're going to have this done, I expect it will be this year but there is not an absolute deadline that we have to get this done.

**S:** We talked about 9 miles of WMNF that you have to take up the lines and move them does that happen everywhere?

**M:** No, not everywhere. It depends on what is there now. We paid a computer provisioner to take photos and told them we're going to put the line here and it will be x feet high and let's see what it looks like. Lattice and monopole, lattice is more economic some people prefer each, it's subjective. People are trying to imagine these things in the sky but it's not always the case. There are some that are 140' to fit in an existing ROW, if there was a larger ROW then it they might bring the height down but we don't need it. That is the reality. If the towers go over the highway people don't really notice because it's gone in a flash the one in Woodstock you can see as you come up to it if you put in the project but note the cell tower at the top of the hill, that catches my eye but maybe I'll see the towers when it's built but it is an area that will be visible for a while when it's built. Concord is a sensitive area but it is up against a wetland area so people are concerned about that change in the visual environment but we are exploring height or to make it as little impact as possible.

**S:** You can't move them because of the wetland?

**M:** That's the thing when people want absolute answers right now, what will it look like given certain parameters, this is what it will look like but through the fed permitting process and the state there might be adjustments but maybe we'll move the line over even though we hadn't planned on it or bring it down, nothing is absolute. I can't speak for Hydro-Québec but they have a very interesting website in terms of what they've done and the impact on the environment and whether or not the native peoples support the projects. I'd suggest you go to their website and contact them

if you want to but they have a very strong presentation I think in terms of the work they've done. Some time ago reached an agreement with the government of the native peoples so everything they do has to pass muster with them, they are part and parcel of what they do if they are developing anything new they need to get their approval.

**S:** It sounds like they are going through something too. As I understand it they already create the power for the Northern Pass project. But they want to expand –Plan Nord and getting opposition.

**M:** Plan Nord might be a little hydro but Plan Nord would have a certain amount of land that they could exploit, I'm not saying that in a negative, but they can utilize that in terms of mineral rights and mining and that sort of thing but part of Plan Nord is a certain amount that is forever protected they can't touch at all and there are some tough feelings about that and people who just don't support it.

**S:** That is all my questions, is there anything that you'd like to end on?

**M:** I would reiterate the project came about because there was an actual demand for this type of energy, to give us something cleaner that will reduce carbon and make sure it's economic. I would say that when people say that we don't need this energy, we do in terms of responding to the recommendation to the group. From The Forest Society for example voted for it and it's a dynamic process and right now nothing is written in stone but we're moving ahead in a manner that we feel NH will benefit from and we're trying to be as absolutely respectful as we can about the land and the people in the various communities to go through so we're doing the best job we can of that and there is a comprehensive public involvement process both in the federal permitting and at the state level so everyone has a voice they have an opportunity to have input in the process and obviously we've already heard from many of them and we're still very early in the process and everyone will have a chance to have their opinion heard and have the various approving agencies to consider them.

## ***Alliance Against Northern Pass***

This interview was with Tom Mullins (T), George Wright (G) and Heather Mclean (H).

**S:** Can you tell me your roles at the Alliance?

**H:** We are the Alliance, Tom doesn't like to say so but he is the boss man.

**T:** I don't look at it that way, I am mouthier than the rest of them and I've been around this area for well over 40 years so I have access to a lot of people and a lot of information. That was the governor's office that I just got off the phone with and I have made those contacts over the years so there are lots of people I know. But we are actually an alliance, we sit down, we work things out together, we develop our plan for our action as a group. I'm the loudmouth but the rest of the clan are the doers to a large extent. I'm still very actively in business and George is a retired military guy and Heather has got a little more time than I do.

**G:** Campton is 7 miles wide and they (PSNH) have a ROW through 6 ¼ miles of that and a lot of that is residential property. There are actually two condos that might have to get torn down because they (PSNH) have to have 225' and they will be in the line of it.

**S:** I asked point blank if any ROW's needed to be expanded and Martin said that none of them did. He did say in certain cases it would be easier to expand them so they didn't have to make the

towers as tall because a lot of the people are against the height of the towers. But there are no expansion of ROW's required.

**G:** Well what I'm looking at is if they need 225' and there are houses within that 225'. We have a trailer park in Campton where there are probably 20 mobile homes right under them. What are they going to do in that case? They can't put the towers through that.

**S:** And they're already under them?

**G:** Yes

**H:** We've seen that other property, the ROW cuts into the corner of their house, right now there is a stone fence that is yard if they build the Northern Pass it will almost go directly over the house.

**G:** There is one family up on 175 that last fall they clear cut right into his backyard right into his kids' swing set, they said "well it's our ROW".

**H:** Some of that growth has been growing

**G:** For 25 years.

**S:** So is the buffer part of the ROW or next to it?

**H:** Next to the ROW.

**S:** Well it must be part of the ROW if they are allowed to cut it.

**H:** Yes it is part of it but it was allowed to grow to block the poles and they aren't even that bad, they are the wooden ones, maybe 40 or so feet. But now they are just shaved down, just open with towers staring at you.

**G:** They are telling you they aren't going to be that high, they're going to be through Campton 145' height right here at the Owl's Nest to Route 149. They're going to be 135', 145' to get up over that mountain and they also have to have X amount of clearance around these wires and they can't be that close to the AC voltage lines.

**S:** Right, that's what I have learned.

**G:** So when they say they aren't going to be that high my guess is they are.

**H:** So when he (Martin Murray) says they don't have to expand the ROW he's admitting that the towers will be taller.

**S:** Yes, he did say that if they (ROW) could go wider they (tower) could go shorter because they could replant the towers.

**H:** It's kind of like blackmailing the people - give us more land and we'll make the tower shorter, you have no choice you're getting screwed. These towers - have you gone and looked and tried to imagine what they'll look like?

**S:** No, I haven't.

**H:** That is what you need to do.

**G:** When you go back to VT go Route 25, in Wentworth look up and see the towers, those are 80' and they want to go another 45', 50' higher.

**H:** This is a resort town; our business is built on people coming to a resort town who want to see beauty. So I think it's important for you to really understand and conceptualize it in person, not from the Northern Pass site where there have pictures of the woods of these tiny little towers in the background. I think it's condescending and their expecting people to believe it.

**G:** They'll go right through here, this resort (Owl's Nest in Campton) he hasn't sold a piece of real estate since this thing was made public he (Tom Mullins) hasn't sold anything in here, people are staying away. I read the paper every week and I'd say in over a year not more than a dozen houses have sold in Campton.

**S:** And is that is different than towns that don't have the transmission line going through it?

**G:** I see more being sold in places like Bristol and towns away from the ROW, the property values are just going down, if you follow it you'll see they are going down.

**H:** And the Northern Pass is relying on an old study, I think I sent you the link to the new study.

**S:** Yes, I had seen that.

**H:** So they are relying on this old study, I don't understand, that is like false advertising. Who in their right mind would come up and buy a second home next to a tower? Who would want to even see a tower? Would you move up here and buy land next to a tower?

**G:** There's been a house on the market next to the substation for 4 years; everyone says "I can't live next to that."

**H:** Everything that Martin Murray says, he's paid millions of dollars, is it \$5 million?

**G:** No, it's nothing like that.

**H:** They're paid so much money to spin this story so that if you're gullible you're going to hear it their way. When you live in this town or in the North Country you tell me and you're going to stay in Campton with those towers, there's no way unless you're an idiot or where are you moving from.

**G:** Heather lives up on a hill; from her house she'll have a beautiful view of probably 12-15 towers.

**S:** So why are you opposed and I think it is the towers themselves is what I've picked up?

**H:** Is more than just the towers.

**G:** We have a foreign country coming across our borders supplying us with energy and our president and government keep saying we need to be less dependent on foreign energy. Here we are entertaining Quebec to come across VT, NH and NY with power lines, there are other sources of energy out there. We did a video on one and you can research this. There is a source of energy out there and if you research it, it can wean the world from oil and fossil fuels to produce energy within five years.

**H:** This is thorium, but I'm definitely more solar energy and this is a point everybody has different ideas about - what is sustainable and what is not damaging to our environment. There can be arguments in every direction. And the issue with bringing over this foreign power is that then we become dependent on this foreign power.

\*Follow-up note, a quick Internet search explains that Thorium is a chemical found in the earth's crust that can be used for nuclear power but is safer than a typical nuclear power plant and the waste will not last as long as a typical nuclear plant and won't create the meltdowns that can occur in a current nuclear facility.

**G:** That's right.

**H:** And the work doesn't stay in NH, the work is going to be up there (Quebec) where they are going to build a series of dams, Project Nord.

**S:** That's a different project.

**H:** That's not what we were told.

**S:** From what Hydro-Québec is saying they already make the power that will supply NH.

**H:** We actually heard that Northern pass will be part of Project Nord so there is a discrepancy there and I'd be interested to see.

\*Follow-up note. There is a discrepancy the Northern Pass website states that "[Hydro-Québec](#) does not need to build any new generation to support The Northern Pass project. It already has the production capacity to make use of the new transmission line." And the Hydro-Quebec website

states “The project involves the construction of a 300-kV direct-current transmission line, about 75 km long. This line will be extended into the U.S.A. to connect Des Cantons substation to a substation to be built in Franklin, southern New Hampshire.”<sup>i</sup>

The project also includes the construction of two converters at Des Cantons substation, each with a capacity of about 600 MW. They will convert alternating current to direct current, to supply the planned transmission line.”<sup>ii</sup> Heather was correct that there is construction required in order to provide the power to Northern Pass. However, neither website indicates that Project Nord is involved in the Northern Pass.

**G:** And you know what they’re doing up there - displacing Indians.

**H:** So there is the issue of foreign power, the issue of all these jobs, we know they’re going to outsource them, they need specialists not just some joe from the electrical company, a small amount of those people but that whole job issue has been proven debunked maybe 200 jobs a year.

**T:** 200-300 at the most a year and they will be very short lived.

**H:** Short lived and if you look at the population of unemployed people it comes up maybe. 01% they are trying to say Northern Pass will save the day.

**T:** NH unemployment rate is about 5% it isn’t as high as the nation, there isn’t widespread unemployment.

**H:** OK, put this also into perspective, look at Tom who is trying to add employees to his resort, a total of how many would you be ending up with?

**T:** Over a thousand.

**H:** And Northern Pass comes through and what’s that going to do to his pristine environment where he wants people to come and go would you? Who in their right mind will say no big deal? So take those 200-300 jobs for those 2-3 years and they might have

**T:** Those 200-300 jobs maybe 6 months.

**H:** Then take all the jobs that Tom has to lose how this project is going to impact the job market in this one situation.

**T:** First of all there are options, viable options for this project that will not trash our economy and views of the mountaintops, the valleys and the wetlands.

**S:** What are those options?

**T:** The primary one is underground, logical and viable.

**S:** And that wouldn’t harm the environment?

**H:** That’s just what Martin Murray thinks that it’s going to have environmental impacts.

**S:** No, that’s my question.

**H:** That’s what he says “there will be environmental Impacts”.

**T:** No, he uses the phrase “Unintended consequences” that’s his catch-all phrase.

**H:** But he also says it will have environmental impacts.

**T:** The ROW’s that would be used are already softened, already trees cut, already in place, already with ledge blown, put the lines underground in a fashion that would be tiny fraction of the impact. There will be places that will come to a bridge that will have to come up out of the ground through a steel conduit along the edge of the bridge and back under the ground again. The methodology for going underground is well established, well engineered. They’ll (PSNH) argue the cost is so much more and it is more costly the question is how much more, probably twice unless you take it to its logical conclusion that it really isn’t more costly in the long run. These power lines give off EMF radiation which is a health issue. The EMF radiation, the consequence of that is that less power ends up going into the grid at its final destination, roughly 7%. If that goes underground 0%,

underground the cable is shielded none is lost in the atmosphere, if you monetize that extra power reaching the grid, that extra power that you can now sell into the grid - completely funds the cost of going underground in a 2 year period of time. So it's a wise investment once they amortize that investment with the extra power by going underground. Then for the rest of the life of the line they have the power to sell, which dramatically increases each year. Why aren't they going underground is the logical question if it's such a good idea? Well first of all PSNH wouldn't own the ROW they'd be owned by the state of NH. They stand to get somewhere between \$70-100 million per year for their ROW, huge money. And that money could be paid to the state of NH instead of PSNH for the highway and railroads.

**S:** So you're not suggesting they put them under their towers?

**T:** They (PSNH) are correct when they tell you it would cost a lot more money, they don't tell you the whole story, what they don't say is that it wouldn't go on their ROW. Their ROW's are not softened the ledge hasn't been blown, the trees haven't been cut, there's water to go through, swamps, WMNF and do things there, they'll have to widen ROW to make it work. They would have to spend a lot to make their ROW ready for underground. It's a fraction of the cost to use the state of NH ROW; the state could get \$100 million in revenue annually for state coffers, ask Governor Lynch or head of the house or senate what would you do with that extra money? School budget, dept of safety, the state could do so much. We hope that it will now. We are creating committees to look into this and hopefully work fast enough before they force this project to happen that the ROW we'll have put together state highways and railroads. Maine has already passed a bill, done the study, the competitor line to this line is National Grid called Bangor Hydro (or Northeast Energy link) 1100 MW down 95 through Maine and through NH 95 underground ultimate irony is that NH is right now PSNH is generating it purposes around 1200 MW and have 4000 MW available to the grid, surplus MW why does NH have to carry the burden of this project through pristine crucial economic areas in order to pass on savings of hydro power to other states, bum deal. Powers that be are in MA and CT. Thomas May, new CEO thinks that we are hicks and don't know anything and should swallow the project.

**S:** What would your alternative be to the project?

**T:** I don't have a built in objection to the power getting to where it may be needed but I'm a business man I think more about jobs, tax revenues, about the region and so my position is if he's hell bent to bring his power through NH, don't destroy NH, give something to NH for this, underground, don't bullshit us about taxes that you aren't going to pay, they keep saying that but every year they will depreciate about 10%, 10 yrs tax revenues are going to depreciate next to \$0. No tax revenue from the lines. Job thing we talked about, 5 permanent jobs out of this project. Power is here, create all the extra jobs, they are not, power is staying, 5 net jobs, they are lying through their teeth when they tell you, they know they are lying. They just can't bring themselves to tell the truth about this project because they are answering to people out of the area who are controlling them like puppets on strings. They're told what to say, how to say it and when to say it. Gary Long, president of the company (PSNH) has used his personal relationship with Gov. Lynch to misrepresent the facts to the point where Lynch was spewing this nonsense early on - he's no longer doing that because he knows what they said early on isn't true. They've pulled off one the most preposterous fraud, I think to the people in the state of NH in the last few weeks by taking the Bow coal plant offline the Bow plant just had well over \$4 million spent on it of rate payers money to put in new scrubbers for the smoke stacks to reduce the mercury emissions from that plant. PSNH gets paid a guaranteed rate of return equity on an annual basis off the ratepayers for any kind of capital improvements thing they send money on its pretax number 14-15% and after taxes 10%. Scrubbers started to work for a while, emissions cut, after 2-3 weeks they pulled the plant offline. Because they have enough power without using that plant, they don't need that plant any

longer, if there was some huge demand for power but people are getting smarter, they're learned to save energy, insulating homes, buying hybrids, doing sensible things both because they are saving money and but also because they realize it's the right thing to do environmentally and emotionally, leaving something for their kids, whatever, arguably \$460 million of tax payers' money that they aren't running?

**S:** And you don't think with air conditioners this summer they'll put it back online?

**T:** They don't have to put it back online, they have enough power; I predict they will put it back online because they'll look so silly, preposterously silly for spending all this money if they don't have an excuse to fire it back up. In the meantime the rate payers are stuck paying the salaries of all the people who work at that plant. The cost of keeping the plant in operating condition even though it isn't running, the coziness that exists between PSNH and Public Utility Commission is bizarre, that is a group with a mission statement for the needs of rate payers in state of NH almost to the point they are not suppose to pay attention to PSNH's needs, time after time do things that allow PSNH to get away with atrocities this is what they do. It's the biggest fraud on state of NH I've ever witnessed in all the years I've been in NH and I use the word fraud, I think they are being fraudulent, claims and methodologies going forward, evidence will come out.

**S:** I'll switch to wind, there is a new wind farm near the Balsams that is about to go online, often times a lot of people have issues with wind turbines how do you guys feel about that versus the power lines?

**T:** I have mixed feelings they haven't tried to use eminent domain, for the most part they are not using high voltage and clearing land for power lines, don't need towers and power lines. The Groton project over here is actually in process of upgrading from 40' to 62' wooden towers, below the tree lines, the co-op made conscience decisions on how to move forward, they could have blown a ROW and put up metal towers they were more caring and understanding of people feelings, there is a right way and a wrong way to do things. PSNH on almost every front has chosen the solution on almost every front that is most disturbing.

**G:** We've asked for PSNH to meet with us to answer our questions. Nov/Dec they were supposed to come to Moultonborough and they cancelled.

**H:** In terms of wind I think that wind towers will be very tall, I don't know enough to comment on it, it depends on what Tom said, what infrastructure will be leading from the project, will they put up huge towers or keep it wooden poles, a space of wind towers versus 180 miles of metal towers.

**T:** This is being forced because of the existing ROW and limitation of the ROW, is pushing the towers high and another thing is the cost to maintain during storms is significant. I'll go back to your point George about a foreign country, Québec has raped its countryside, this concept of green power is bullshit these forests sequestered CO<sub>2</sub>, they cut these trees, no need for logs so they slashed them to the ground and flooded millions of acres with water. This switched the formula, the trees are no longer sequestering CO<sub>2</sub> they are giving off CO<sub>2</sub> and much worse – methane gas and mercury. Indians can no longer fish because of mercury.

**H:** They don't have to mention that. They just highlight what they want, make it up. Wind towers are less offensive except for birds, we can talk about that.

**S:** What about visibility, I know from experience, one of the biggest issues is that it's an eyesore?

**T:** I've never found one person who thinks the towers are remotely attractive, my sense is about 50% find the windmills whimsical and not as bad as they thought, the other 50% wish they weren't there but they don't raise the hackles, you'd be okay looking at them.

**H:** I don't know.

**G:** Massive wind farm.

**H:** Another question is, are we talking Northern Pass, wind is another subject.



**T:** Questions of relativity, no cables. On these lines there are no less than 6 cables coming down; one brings power down, another to bring power back the others a ground and there are two sets. Half on each side and because they are so big they are so close to ground, can't be within distance of AC lines that are there. Combination of cables, grotesqueness of towers versus wind turbines and power through trees it's a question of severity and impact, what is so much bigger and as I said the wind power people didn't threaten eminent domain, not subsidized. Storms wreak havoc on these lines there are numerous instances of these lines being dropped to the ground during storms. Power will go to Canada first before it comes here if that happens.

**H:** Martin Murray likes to say that if we bury it there will be more problems when you read the information on HVdc light they are more reliable and have inspection points. If you asked me about my utopian power, solar power and small hydro they are much less of an impact on environment then these huge damns that are an issue logically, wind is ugly in comparison to panels on a roof but I'm for solar, my opinion is that we don't have more solar because the technology has been squashed because it makes people independent.

**S:** I was shocked at how little solar is in NH.

**G:** It is so expensive but you can build it yourself.

**H:** I don't think they want us to be independent.

**T:** You aren't being realistic.

**G:** There is enough solar power to power the world if we tap it; they make it expensive for us to do it.

**H:** Why is it so expensive?

**G:** The oil companies.

**H:** They squash the technology.

**T:** The natural gas is at an all time low.

**H:** People can connect everything to natural gas, solar for energy makes people independent the big companies want us to rely on them.

**T:** Solar will never meet people and business needs, ever.

**S:** What could Northern Pass, LLC do to make you support them?

**H:** Bury the line.

**G:** Bury the line.

**S:** Can they do that everywhere including up north?

**T:** Yes, 89, 93, 3, railroads up north.

**H:** Old railroad beds.

**G:** Straight shot.

**T:** Quasi public private state of NH, recoup investment income to state cooperate to resolution to make people happy and most people go away but to them it's all or nothing. They want all the money.

**G:** We suggested a partnership with state, ROW and if they're not careful it's going to be too late for them.

**T:** This new Resident's Power thrust will get people's attention.

**S:** Is that another electric company?

**T:** Resident's Power is a company that has been structured to move people off of PSNH and to other power companies for residential needs and promising them a 10-25% reduction of power consumption and they get away from PSNH. There's already between 30-40% of the commercial customers have already migrated, they are already in tough financial shape and their income stream is going to be devastated because people are going to make the switch to get even.

**H:** Resident Power

**T:** They do it in slides, they've already transferred 2,000-3,000 residential customers and our goal is to switch a thousand customers for every piece of property they've bought up north over to Resident.

**S:** Wouldn't they still have to use PSNH transmission lines?

**T:** Yes, but

**G:** They would get paid instead of PSNH.

**H:** PSNH gets money for transmission lines.

**T:** But since deregulation there are no more forced monopolies here but PSNH has to earn their way. If the power was essential for the state of NH that would be one thing, but we're only using a fraction of the power that is generated in NH. We're going to have, when the project in Berlin comes online, we're going to have 250% of our average daily needs; we're already at 140%.

**S:** So

**G:** We have a surplus.

**H:** Northern Pass isn't for NH.

**S:** I believe that all of New England uses the same energy, but you use what is closest to you.

**G:** NH generates 140% that goes in.

**H:** We're the extension cord.

**T:** MA, 76% is generated towards their needs; RI doesn't generate enough to meet their needs. NH and VT have surpluses we could afford if we weren't thinking about the grid so where is our power going once it gets on the line, it is the nature of electrons to go to where there is a call for them. That is why there is a grid, ISO-NE helps regulate and it goes where it is needed, the shame of it is the Salem power plant. NH first as far as I'm concerned, we've got our needs met, we've done it responsibly there are many smaller sources of power generation in NH that have made us energy independent in this state and with natural gas we could function in a relatively environmental fashion. So if NH is going to shoulder the burden of power lines or power lines underground there should be some deterrent for NH, we get nothing and guys like Tom May making \$8 million a year sitting in a chair. In his article he is sort of demeaning to the people in NH because they don't know much about what is going on and who is he to say this stuff? We are a main reason why the company didn't go under in the past few years because they've done a piss poor job of managing their grid, huge power outages in CT, RI, and MA. They didn't pay attention to the business, there needs to have some level of consideration paid to our needs. We have a right to be told the truth and we're not.

**S:** You've (Tom) had experience with them (PSNH) before?

**T:** Yes all the time.

**S:** It sounds like you have a pretty good relationship with other opponents; do you think they'd agree that if the lines were buried they'd be okay?

**G:** Honestly there are some people who don't want it at all and from what I read they seem to think if they bury it, it's going to go through their backyard.

**T:** I don't know anyone who was told "you're going to have this line, period end of sentence." Do you want a line or buried?

**H:** Yes, but there are people who still say no way, no how.

**T:** Yeah, sure but they

**H:** But 90% of the opposition would go away if they said we'll bury it. It would literally end, dancing in the street.

**T:** It would solve the education crisis in NH.

**G:** Right now the road department in NH, there was a big article in the Concord Monitor; they don't have the money to finish projects they've started.

**S:** And they've closed almost all visitor centers due to no money.

**G:** They don't have money to finish the work they are doing.

**T:** So let's go back to the Seabrook station issue. This is a defining issue of the 21<sup>st</sup> century it's early in the century and it's hard to predict but I can't imagine that NH will be faced with a more critical decision for its future. It seems like the politicians have caught on Kevin Smith, Republican Lamontagne, Republican and Kelly Ayotte, Republican have all made formal public commitments that this project needs to go underground. The senate and the house have all passed bills with huge margins denying the use of eminent domain for this kind of a project, establishing study committees for going underground, the writing is on the wall on this project but PSNH isn't reading the words. I think they are hoping they can bully their way through.

**G:** I think PSNH is being driven more by Northeast Utilities and NSTAR.

**T:** Well they are.

**G:** They are the ones who must be funding it.

**T:** No. No, this whole line is being funded by Canada, they send out for money probably every week and, they are funding this. That's the only reason it's continuing.

**G:** What happens in the end if it comes down the line and the president says I'm not signing the presidential permit do they just have all this land now?

**T:** They can donate it to Society for the Protection of the Forest.

**G:** PSNH is being funded right now to buy this land by Québec?

**T:** That's right.

**S:** Closing comments or opinions, you sound like you kind of you just summed it up, Tom? Heather, George?

**G:** We've been pushing for this for over a year, educating people.

**H:** As a matter of fact we started looking online and presenting it to other people and took our own trips to the state house, talking to senators and giving them packets on undergrounding and Mike Marino was giving talks on it.

**S:** On light cables or traditional?

**T:** Light HVdc.

**H:** This information that I gave you, we've given it to everyone.

**T:** They're sold now.

**H:** You've (Tom) had conversations with the company.

**T:** Yes, I've had conversations. NSTAR was PSNH's counterpart in MA and this plant on the shores of the Atlantic in Salem - big ugly coal plant, awful thing sits on 60-70 prime acres of waterfront in Salem, owned by Dominion Power, produces around 900 MW of power a day so it's one of the biggest generators and they struck a deal with NSTAR to let Dominion shut it down.

**G:** 2014

**T:** They can spend the same kind of money that Bow did to fix smokestacks but this real estate is worth an unbelievable amount on the waterfront so NH has to accommodate for this loss of 900 MW of power to meet the demand that NSTAR has made. That's such a sucky deal. Why would we let that happen, it's crazy for us to let something like that happen. If you need the power so bad, leave the plant and put some smoke stacks up. It could work don't make us deal with it or deal with cables for something that you are artificially increasing; shops, restaurants and convention center and all those things that some people might argue that we'd be better off with in NH; create jobs, meals tax, revenues and hopefully we're going to have something like that soon here on exit 28 but we're not displacing a power station to do it. That's what they're doing what kind of a sweetheart

deal to accommodate that kind of arrangement, I don't know but they let them get away with it. If this project went down the tubes up here that might not happen in 2014 they don't have the wind farms off the cape yet, that's going to raise their cost of power dramatically. I love the deal they made down there in exchange for Northern Pass and all kinds of other things going on down there and get wind turbines.

**G:** Two big farms off the ocean down there, the biggest one is what 102 square miles?

**T:** That is out of sight, Cape Wind is right there off Nantucket I have people say that I am calm compared to people down there. So this is a monumental issue, go back and read how inflamed people were about Seabrook and why we ended up with one reactor instead of two. We want to be treated fairly and want opinions considered at least to the same level as PSNH. The havoc that will be created when they try to come down these 140 acres is going to be crazy what they'll have to do to get people off the ROW, next to the ROW you think it's been loud up north wait until they get to this area down here.

**H:** I know when actually looking at the NH people with the live free or fry seem a little crazy and that's what I've heard, "if that comes through I'll be out there with my xxx".

**T:** I don't think that is beyond believability at all.

**H:** That's NH, it's entirely possible.

**H:** We have a good working relationship each of us has put our own personality into this in a way that has utilized our own special talent and I think that is what the opposition does. It is very unique there are certain people with certain strengths and they do certain things and so it's made for a really interesting batch of opposition and we know if you want to talk about land talk to Bob Baker, if you want to talk about legal issues talk to Jim Dannis.

### ***Follow Up with Martin Murray***

Below is a follow-up with Martin Murray regarding Resident's Power that was discussed during the interview with the staff at the Alliance Against Northern Pass.

**S:** Have you noticed a drop in the customer base due to Resident's Power?

**M:** Customers of PSNH have had the legal right since 2002 to purchase energy from an independent supplier. If such an agreement is made, the energy is still delivered by PSNH and the customer pays for that delivery. Most of our largest customers already purchase energy from an independent supplier. Residential customers were not targeted by suppliers until just recently, because it is not as profitable for a supplier to market to that customer group. As I understand it, Resident Power is aiming, mainly at "residential" customers. As of the end of March 2012, PSNH had a total of 422,779 residential customers. Of those, 2,704 were taking energy from an independent supplier. (I don't know if they are Residential Power customers, or another firm.) That is 0.64 percent, or six-tenths of a percent of our total residential customers.

### **Pros and Cons**

The project opposition includes The Alliance Against Northern Pass, No Northern Pass Coalition, Hands Across New Hampshire blog, Live Free or Fry, The Forest Society, and Conservation Law Foundation.

- People don't want towers
- Ruins views
- Will reduce tourism
- NH doesn't need the power so it shouldn't go through our state

- Health issues
- Towers on personal property
- Forestland and eco systems will be affected
- Taxes will not be as much as promised
- Jobs will not be as many as promised

Advocates for the project are Northeast Utility and subsidiaries

- Will lower electric rates
- Will bring renewable energy to New England
- Was asked for by the Governor's Climate Action Plan
- Will reduce carbon emissions up to 5 million tons a year which is equal to almost 900,000 cars' emissions
- Less reliance on nuclear, gas and oil
- Will add tax revenues
- Will add temporary and permanent jobs

## Supply and Demand

New Hampshire has very low energy consumption and per capita energy consumption; however it is the 45<sup>th</sup> highest carbon dioxide polluting state in the US. New Hampshire doesn't have a high electric usage, the most is found in transportation and residential uses. Most power doesn't come from renewable resources although some is possible with wind, hydro-electric or biomass from wood<sup>iii</sup>. In 2009, over 50% of the electricity produced in NH was exported out of state<sup>iv</sup>. Exhibit 3 shows how New Hampshire receives their electricity; in 2009, 28% is from nuclear which is largely produced in Seabrook, NH (there are four additional nuclear power plants in NH), natural gas at 34% and coal at 12%, hydro and fuel oil following at 10% with wood waste and other completing the generation. Natural gas is being delivered via pipeline and coal is imported. The hydro-electric and wind are currently generated in New Hampshire. The power generated in New Hampshire comes from 60 power plants but over 80% of the power comes from the 5 largest; FPL Energy Seabrook, LLC, PSNH, Granite Ridge Energy LLC, Newington Energy, LLC, TransCanada Hydro Northeast and all the rest, see Exhibit 4 for the output.

## Tourism

New Hampshire's largest industry is tourism. People visit NH in all seasons; the summer for hiking, swimming, golf and attractions such as the Cog Railway, Santa's Village and Storyland, the autumn is well known in New England for the colorful foliage, spring is slowest but still has a lot of visitors for the scenic beauty and the winter is popular for snow sports. The installation of transmission lines are a concern for the opponents to this project. People who are coming to New Hampshire for the scenic beauty of the mountains and lakes may opt to vacation in places that do not have 90' average transmission lines. Another concern is that Northern Pass will disrupt the forest land which would impact animals and animal habitat which is another tourist attraction. There is no proof that this will impact the state but it should be noted since tourism is a huge portion of the state's economy throughout the year.

## Regulations and Permitting

Permits required for The Northern Pass include:

- The New Hampshire Site Evaluation Committee: Certificate of Site and Facility
- Certificate of Site Facility
- U.S. Department of Energy: Presidential Permit
- Secretary of the U.S. Department of Agriculture: Special Use Permit
- U.S. Army Corps of Engineers: Individual Permit<sup>v</sup>

The New Hampshire Site Evaluation Committee (SEC) needs to issue a permit called the Certificate of Site and Facility. This is a permit that is required for energy facilities including pipelines, power plants or transmission lines (as the case here), for economic development and public safety. The process is expected to begin at the end of 2012. The purpose of the NH SEC is to ensure safety balanced with the public needs. All sites and constructions zone should be safe; the need of the public economically and environmentally needs to be considered during the review process for any project. There are public meetings held in the towns of a proposed project to inform the public and hear concerns.

A Presidential Permit is required for certain projects that cross the Canadian border into the US for projects such as bridges, pipelines, tunnels, and tramways. The permit is to show that the project is in the best interest of the people and is determined by the Department of Energy (DOE). The DOE, along with other federal departments that are appropriate will look at the environmental impacts, alternatives, and its impact on the electric reliability. They will consider the public's opinion and when the decision is made will make public all notes and findings, environmentally preferred alternatives, and why the decision was made. The options that the DOE has are to deny the application, approve or to provide alternatives. They will also evaluate options that are not part of the application to avoid, minimize, or repair adverse environmental impacts. This process considers all environmental factors, air, water, pollution, traffic, animals, wetlands, historical sites, and the land. This application was submitted in October 2010 and an addendum filed February of 2011. The DOE held public meetings in March of 2011 and the project submitted a letter for extension in April of 2011. The DOE has put together a team to prepare the Environmental Impact Statement (EIS) for the permit.

The Special Use Permit is required from the Department of Agriculture for the project to cross the White Mountain National Forest. This permit will allow the forest service to review existing corridors, animal habitats, potential impacts to wetlands, endangered species, and must be in line with local economics. They can work with the DOE to make their determination. This is not filed yet.

The Individual Permit that is submitted to the Army Corps of Engineers is under section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act and can be submitted once the DOE's Environment Impact Statement is returned. Section 404 relates to the building of roads in the forest service areas and any impact to water for any reason. The Rivers and Harbors Act doesn't allow building on water that is not in a harbor and doesn't allow any filling or changing of a navigable waterway.

The Federal Energy Regulatory Commission (FERC) approved the funding in May 2009. FERC is a regulatory agency that must approve interstate transmission line for electricity, pipeline for natural gas and they must license hydro-power projects.

The Transmission Service Agreement, TSA, was approved by FERC in February 2011. This approval states that the power will come from Hydro-Québec, rates and costs have not been determined.

## **Alternatives**

Alternatives are available to this project; Maine Express, Champlain-Hudson Power Express, Northeast Energy Link, Green Express and using an existing Vermont corridor.

The Maine Express a project that would be provided by Transmission Developers, Inc. (TDI) is an underwater cable transmission for 1,000 megawatts of electricity from Wiscasset, Maine to Boston, MA of 150 miles. It would be high-voltage, direct current (HVdc) transmission, a 6" cable would be buried approximately 3 feet under the water so it would not be seen, it would not interfere with fishing, there would be no electromagnetic energy, and would provide construction jobs for two years. It would cost approximately \$1 billion to construct.

The Champlain-Hudson Power Express project is another project proposed by TDI, the project would bring 1,000 megawatts of electricity from hydro and wind power from Québec to New York under Lake Champlain, the Hudson River and Long Island Sound. The project is 420 miles and will cost approximately \$2 billion. Similar to the Maine Express it would use HVdc cable, run under the water, other than an area in New York where there are locks; it would be buried, no electromagnetic energy for people or animals. This project would take approximately 3 ½ years to construct employing approximately three hundred workers and would be completed in 2015. There is no danger to people or the environment if the cable is damaged, the power will stop flowing almost immediately. The goal is to reduce electric rates to customers in New York. The construction money would come from federal initiatives. Hydro-Québec has stated that this would compete with the Northern Pass project.

Another option is the Northeast Energy Link project bringing 1,100 MW direct current transmission line from Maine via primarily hydro and some wind power. They'll bury all lines in existing corridors; no private property will be impacted and no towers will be installed. The project will begin in Orrington, Maine and end in Tewksbury, MA, which is 230 miles. There would be no price increases to the existing customers for the construction; this cost would be paid for by the generators of the electricity and other suppliers. The benefits are lower electricity rates, lease payments for the land where the cable will be buried, jobs during construction and ongoing maintenance, a reduction in fossil fuels, additional transmission capacity, co-locating with existing transmission lines is a benefit to the environment as there is less areas disrupted. Permitting and construction timeframes are the same as Northern Pass with an estimated completion in 2016.

Green Line will bring renewable energy from Canada and Maine to Boston 800 MW using cables under the ocean. The route will be from Houlton, ME to a location in either Salem or Boston, MA. It will use the same type of HVdc cables that TDI will use in their projects.

## Conclusions

The Northern Pass project has been highly debated since it was announced by Northern Pass Transmission, LLC. The project will provide power to the New England grid; the states with the highest usage do not produce enough electricity to cover their needs. This project will bring clean energy to the state and reduce dependence on fossil fuels. There are benefits of the project; the needed energy, desire by the Governor's committee for hydro power, increased jobs and tax revenues. Northern Pass is trying to work with the residents to choose a route that will benefit the people and allow them to be part of the project route.

The opposition has another side of the story; they deny that Northern Pass has tried to work with the residents along the route; they deny the number of jobs to be created and tax payments that will be provided to the towns and feel they have been lied to about the height of the towers and use of eminent domain. They have a variety of other issues such as foreign energy coming into the country, that the power is not needed, and that there are alternatives both within the project and outside of it.

The truth is that both sides have cases. The Alliance Against Northern Pass is working very diligently with the legislature to pass a bill on underground burial, they have done extensive research on HVdc and have educated the candidates about the technology and have the state house working with them to allow the Northern Pass to go through the state as long as the cables are buried. They have worked with law makers to send a bill to the Governor so that the state ROW's can be used for the buried cables. Northern Pass says that they have looked into the HVdc technology and that it isn't tested for the application of this project.

Why do Northern Pass and the opposition have completely opposite facts and positions? There needs to be communication. The opposition worked hard to pass the bill against eminent domain, although Northern Pass hasn't tried to use it and has stated since the beginning of the project they have no intention of using it. There is a lot of mistrust between the groups.

There needs to be a mediator to get people on both sides of the issues to look at alternatives before Northern Pass brings a new amendment to the DOE. There is no sense in taking the process out another year or two with opposition that could potentially be headed off before it started. This is an important project and as Tom Mullins stated "This is a defining issue of the 21<sup>st</sup> century it's early in the century and it's hard to predict but I can't imagine that NH will be faced with a more critical decision for its future."





# Exhibits

Exhibit 1 Federal Brochure of Process

The U.S. Department of Energy (DOE) prepared this brochure to encourage and help you to participate in the National Environmental Policy Act (NEPA) process. All Federal agencies must comply with NEPA, but their procedures vary. This brochure describes DOE's NEPA process, focusing on your role in DOE's preparation of Environmental Impact Statements (EISs).

### What Is NEPA?

NEPA is a Federal law that serves as the Nation's basic charter for environmental protection. It requires that all Federal agencies consider the potential environmental impacts of their proposed actions. NEPA promotes better agency decisionmaking by ensuring that high quality environmental information is available to agency officials and the public before the agency decides whether and how to undertake a major Federal action. Through the NEPA process, you have an opportunity to learn about DOE's proposed actions and to provide timely information and comments to DOE.

To implement NEPA, all Federal agencies follow procedures issued by the President's Council on Environmental Quality in the Code of Federal Regulations (40 CFR Parts 1500-1508). DOE also follows its own supplementary procedures, found in 10 CFR Part 1021.

### How Does DOE Prepare an EIS?

The EIS process consists of several steps, each with opportunities for you to be involved.

- Notice of Intent.** First, DOE publishes a Notice of Intent to prepare an EIS in the *Federal Register* and makes local announcements. This notice states the need for action and provides preliminary information on the EIS scope, including the

alternative actions to be evaluated, the kinds of potential environmental impacts to be analyzed, and related issues. The Notice of Intent also serves as the beginning of the next step, the "scoping process."

**TIP:** The Notice of Intent explains how you can participate in the scoping process and provides information about dates and locations of public meetings.

- Scoping Process.** DOE requests your comments on the scope of the EIS. What alternatives should be evaluated? What potential environmental impacts should be analyzed? DOE's scoping process will last at least 30 days, with at least one public meeting.

**TIP:** During the scoping process, tell DOE what EIS information you would like to receive (e.g., a summary of the EIS or the full document on CD or on paper).
- Draft EIS.** DOE considers scoping comments in preparing a Draft EIS. An EIS (Draft or Final) analyzes and compares the potential environmental impacts of the various alternatives, one of which is always a "no action" alternative. The EIS also discusses ways to avoid or reduce adverse impacts. A Draft EIS will identify DOE's preferred alternative(s) if known at the time.

**TIP:** DOE EIS schedules and related NEPA information are available at <http://www.eh.doe.gov/npa>. DOE often has EIS-specific Web sites as well.
- Public Comment on the Draft EIS.** After DOE issues a Draft EIS, the U.S. Environmental Protection Agency (EPA) publishes a Notice of Availability in the *Federal Register* to begin the public comment period, which will last at least 45 days. DOE also will announce details regarding how you may comment on the Draft EIS, either orally at a public hearing (at least one must be held) or in writing.

**TIP:** Check your local paper, the DOE NEPA Web site (<http://www.eh.doe.gov/npa>), click on "What's New" or "NEPA Public Participation Calendar," or other DOE notices for information about public hearings and ways to submit comments.
- Final EIS.** DOE considers all timely public comments on the Draft EIS in preparing the Final EIS, which must respond to such comments. The Final EIS identifies DOE's preferred alternative(s). After DOE issues the Final EIS, EPA publishes a Notice of Availability in the *Federal Register*.
  - Record of Decision.** DOE must wait at least 30 days after the EPA Notice of Availability of the Final EIS before issuing a Record of Decision. A Record of Decision announces and explains DOE's decision and describes any commitments for mitigating potential environmental impacts.

**TIP:** DOE publishes Records of Decision in the *Federal Register* and makes them available on the DOE NEPA Web site. You may also ask DOE to send you a copy.

**public participation**      **analysis**      **alternatives**      **better decisions**      **environmental protection**

## National Environmental Policy Act

Exhibit 2 Original Proposed Transmission Line vi

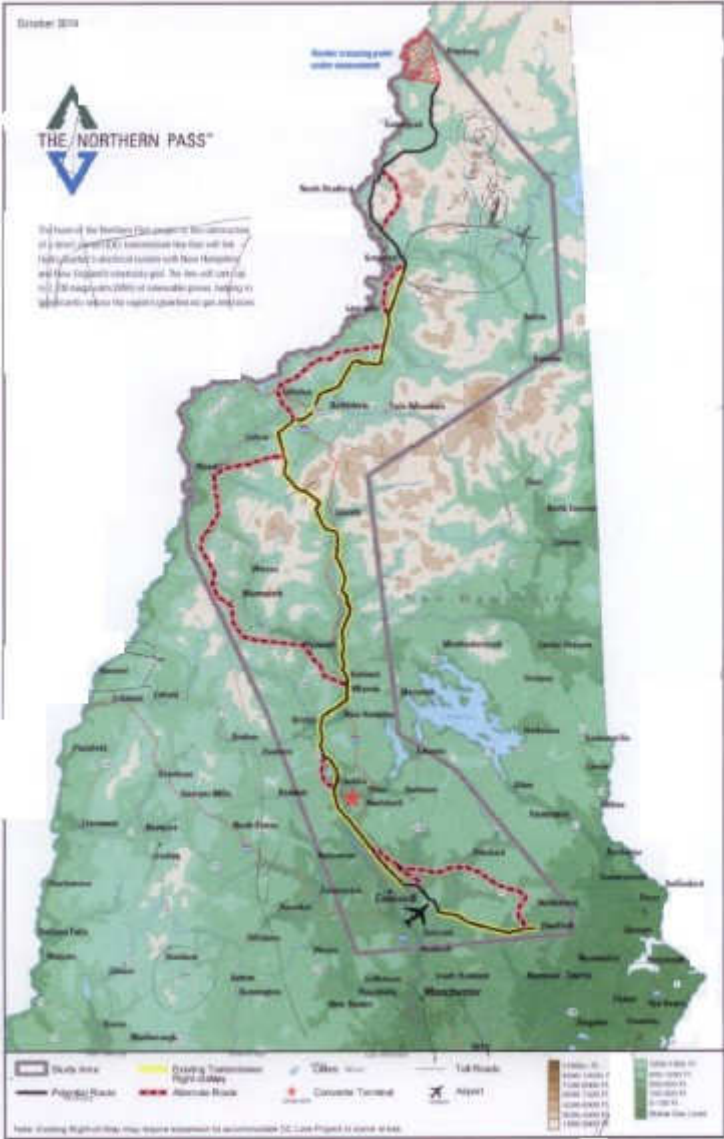


Exhibit 3 NH Electricity Generation

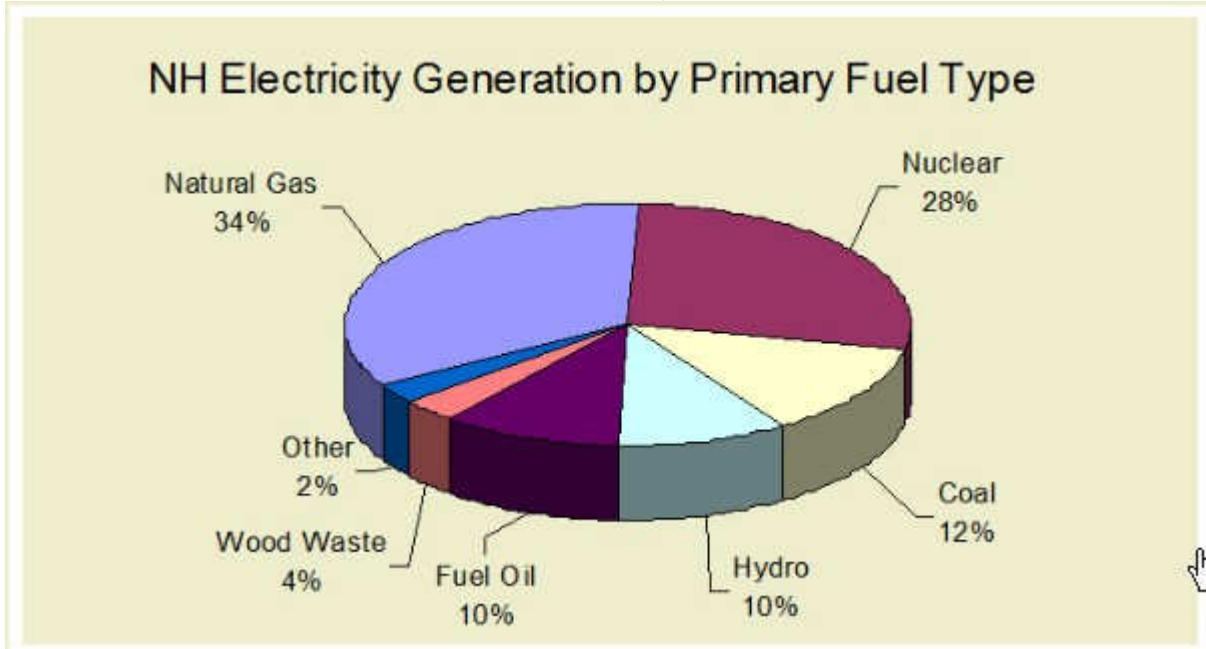
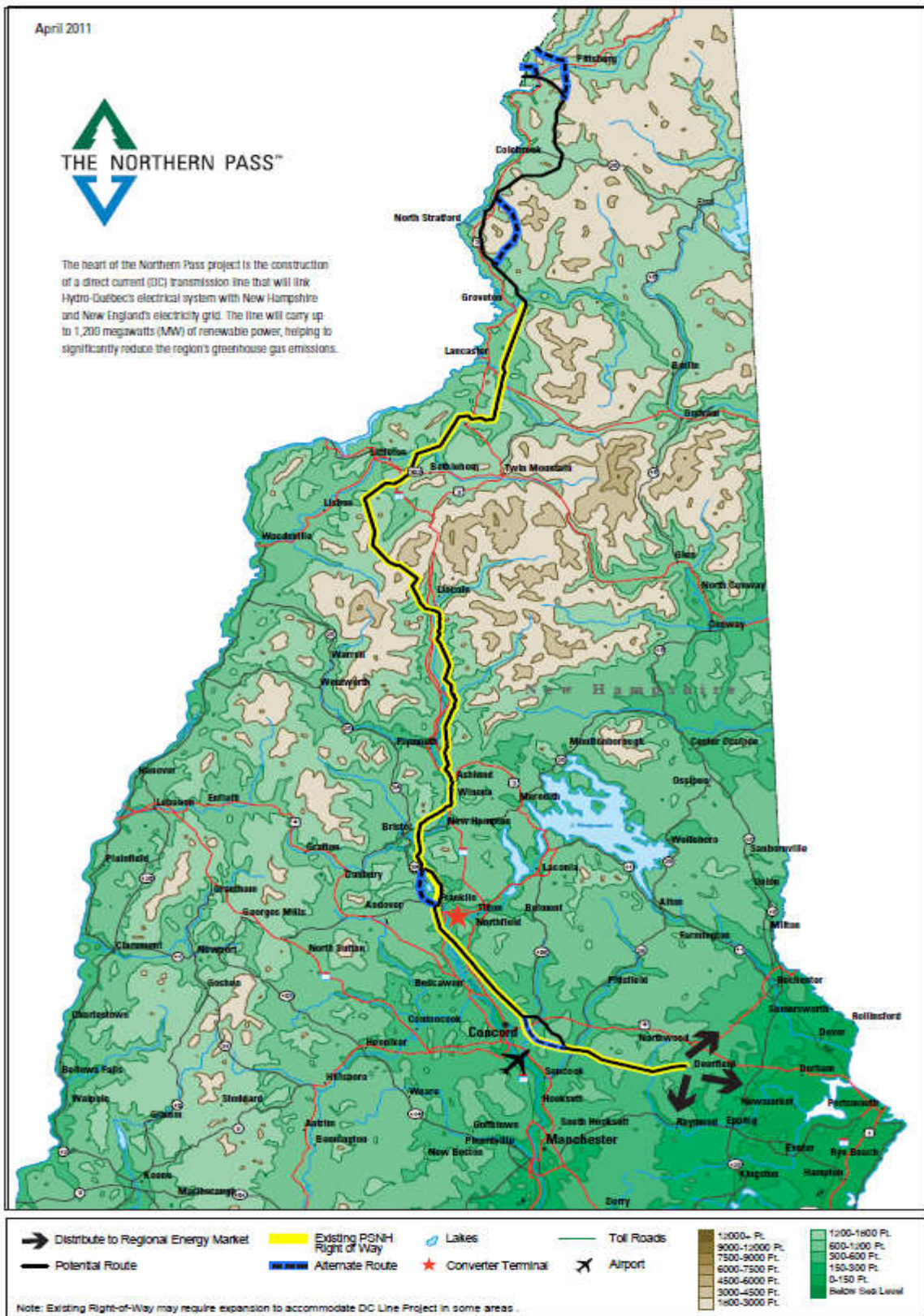


Exhibit 4<sup>vii</sup> Top Power Plant Owners in NH



### Exhibit 5<sup>viii</sup> Current Proposed Transmission



Line

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