

STATE OF VERMONT  
DEPARTMENT OF PUBLIC SERVICE

IN RE: NORTHWEST REGIONAL PLANNING  
COMMISSION'S REQUEST FOR A DETERMINATION  
OF ENERGY COMPLIANCE PURSUANT TO 24 V.S.A.  
SECTION 4352

August 31, 2017  
7 p.m.

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100 N. Main Street  
St. Albans, Vermont

Public Hearing held before the  
Vermont Department of Public Service, at the St. Albans  
City Hall Auditorium, 100 North Main Street, St. Albans,  
Vermont, on August 31, 2017, beginning at 7 p.m.

P R E S E N T

COMMISSIONER: June E. Tierney

STAFF: Sheila Grace  
Daniel Potter

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1                   COMMISSIONER TIERNEY: So good evening  
2 folks. My name's June Tierney. I think we are going  
3 to get started here. Can you go on the record, Ms.  
4 Carson. If my voice drops and you can't hear me,  
5 will you just shout out and let me know? Because I  
6 do have a tendency to drop my voice, but we are  
7 trying to keep it intimate tonight and not do the PA  
8 thing if we don't absolutely have to. Come on in,  
9 sir. Do we have a sign-up sheet here, Mr. Potter?

10                   MR. POTTER: We do.

11                   COMMISSIONER TIERNEY: May I see it  
12 please? So I see from the sign-up sheet tonight that  
13 we have nobody signed up to speak, and that makes a  
14 great deal of sense. People often like to come to  
15 these things and to listen --

16                   MR. BUERMANN: Can we put our names on  
17 the sign-up sheet?

18                   COMMISSIONER TIERNEY: I beg your  
19 pardon?

20                   MR. BUERMANN: I didn't realize we  
21 needed to sign up ahead of time.

22                   COMMISSIONER TIERNEY: Here's how I  
23 plan to proceed. I'm going to ask Ms. Dimitruk, is  
24 it? To give a brief overview of the plan that we are  
25 hearing about tonight. And then if you change your

1 minds and decide that you would like to make some  
2 comments, feel free, and we will just get your name  
3 and put it down. But that's what we are here for  
4 tonight is to hear from you about the plan that's  
5 been prepared by the Northwest Regional Planning  
6 Commission and that has been submitted to my agency  
7 for review to see if it complies with the standards  
8 that my Department was required to issue pursuant to  
9 Vermont law. And if not, to give you guys some  
10 feedback on what needs to be done to the plan in  
11 order to bring it in line with the standards so that  
12 we can get you the certification that your regional  
13 Planning Commission had asked for.

14 So to take it from the top, as I said,  
15 I'm the Commissioner of the Department of Public  
16 Service. I'm the individual who will be making the  
17 determination as to the plan. And with me tonight  
18 are Dan Potter who is an energy policy analyst in our  
19 shop, and Sheila Grace the attorney who is staffed on  
20 the matter. And I particularly emphasize Mr. Potter  
21 and Ms. Grace to you because should you have  
22 questions or insights after this evening, these are  
23 the people who work for you, just as I do, and they  
24 are at your disposal to contact and to give us your  
25 further comment or insight about this plan. So don't

1 be shy at all about contacting us. We are pretty  
2 easy to find. Did we bring the contact information  
3 with us tonight?

4 MR. POTTER: No.

5 COMMISSIONER TIERNEY: We did not. We  
6 are still easy to find though.

7 (Laughter)

8 MR. POTTER: If anyone would like my  
9 E-mail address and phone number, please feel free  
10 after the presentation to come up and approach me.  
11 I'll be happy to give you that contact info.

12 COMMISSIONER TIERNEY: It's really  
13 easy. It's dan.potter@vermont.gov; right?

14 MR. POTTER: Yeah.

15 COMMISSIONER TIERNEY:  
16 Sheilagrace@vermont.gov. And of course you're  
17 absolutely free to contact me as well. I'm simply  
18 Junetierney@vermont.gov.

19 I would like to start tonight by  
20 offering a little context for the public hearing.  
21 Act 174 is a law that was passed, I want to say about  
22 a year and-a-half ago, two years ago. It created a  
23 new energy planning process in Vermont for municipal  
24 planning bodies and also for regional planning  
25 bodies. And so pursuant to this process a

1 municipality or a regional Planning Commission has  
2 the option of submitting a duly adopted plan, and by  
3 duly adopted we mean it's gone through the process of  
4 your local governance and getting adopted pursuant to  
5 a town vote, for instance, for if it's regional  
6 Planning Commission through their voting process.

7 Anyway, once's it's gone through that  
8 process and has been actually adopted, it's then  
9 submitted to my office for review, as I said a moment  
10 ago, to determine whether it meets the statutory  
11 standards of 28 -- 24 V.S.A. 4352. I apologize for  
12 the gobbledygook, but basically the standards of law.  
13 And when a plan has received an affirmative  
14 determination, that means that the Vermont Public  
15 Utilities Commission, not to confuse you, but they  
16 changed their name recently. They used to be the  
17 Vermont Public Service Board, but they got such bad  
18 press they had to change their name. I'm kidding.

19 MR. TREMBLAY: Speak up a little bit.

20 COMMISSIONER TIERNEY: You want me to  
21 say that louder with greater emphasis? Fair enough.  
22 I'll skip the joke and just tell you that if the plan  
23 gets an affirmative determination, it's entitled to  
24 what's called substantial deference from the Public  
25 Utility Commission whenever a person -- say a

1 merchant generator, or somebody who has an interest  
2 in developing a generation project to make  
3 electricity submits what's called an act -- a Section  
4 248 application for a Certificate of Public Good from  
5 the Public Utility Commission. And to just break  
6 that down a little bit, a Certificate of Public Good  
7 is basically a license to build the project so that  
8 they can generate energy. And as part of that  
9 certificate is also an inquiry and then ultimately a  
10 decision about where this project can be located and  
11 under what conditions it has to be built and  
12 operated. Can you hear me okay? Okay. Very good.

13 MR. TREMBLAY: Yes.

14 COMMISSIONER TIERNEY: So anyway, right  
15 now under existing law if a plan has been submitted  
16 for my certification doesn't get approved, the  
17 existing law is what controls. And under the  
18 existing law, what that means is should a project be  
19 proposed, the Public Utility Commission will give due  
20 consideration to the existing plans that the town or  
21 the region may have. And I will thank you to not ask  
22 me what the legal significance is between due  
23 consideration and substantial deference because that  
24 simply has not been resolved.

25 But I think it's fair to say that the

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legislature intended for substantial deference to be a heightened form of consideration as in here's what we would like, that's due consideration. We really mean it, Public Utility Commission, is perhaps what due deference -- substantial deference would mean. And the Public Utility Commission leeway to not fully honor one plan whether under due consideration or under substantial deference is a question of degree. And as best as I can infer from this language, substantial deference would mean they really, really have to have very good reason why they don't do what you have asked them in the plan to do. That's as much clarity as we are in a position to give you at this time.

I can tell you based on experience that time invested in putting one of these plans together is not wasted whether it's at the municipal level or the regional level. It's so very important that communities have these conversations and come up with their ideas and put them on paper as to what they want their communities and their regions to look like. That's part and parcel of controlling your destiny. So that even if you don't exactly get the outcome that you want right now, and as I say that, I'm speaking purely theoretically because my staff



1 has not completed its review. So sitting here  
2 tonight we do not have in mind what the outcome of  
3 that review's going to be. But I'm simply trying to  
4 give you the straight stuff which is even if you  
5 don't get the outcome that you want this time around,  
6 it doesn't mean it's out of reach. It simply means  
7 that there is an extra step, a couple changes,  
8 whatever, that have to be made.

9 And I assure you that the Department is  
10 at your disposal to help you get it to the outcome  
11 that you want. Well let me be clear. We are there  
12 to help you and to give you the guidance we are able  
13 to give you. Whether it's the ultimate outcome you  
14 want, I can't speak to. And if there is one thing  
15 I've tried to do with my public service career it's  
16 to not overstate things that I simply don't know even  
17 though the temptation is to want to give people as  
18 much comfort as possible. But if nothing else, you  
19 can certainly take on faith that the people who work  
20 for you are engaged in it sincerely, and are  
21 genuinely interested in providing guidance and to  
22 help bring about outcomes that do serve the public  
23 interest of the State of Vermont, and that includes  
24 everybody, not just the state government. State of  
25 Vermont. That's you. Not us.

1                   So anyway. We are here tonight to hear  
2 from you as to your thoughts about this plan. Show  
3 of hands. Do the people here tonight know this plan?  
4 Have you had a chance to look at it before.

5                   (Raising hands.)

6                   COMMISSIONER TIERNEY: Great. Now a  
7 question for you. You know the plan. You really  
8 don't have any comments to give us tonight? If I ask  
9 you really nice?

10                  MR. BUERMANN: I signed up.

11                  COMMISSIONER TIERNEY: I'm looking  
12 forward to hearing from you. You look like somebody  
13 who has got a lot to say. That's going to be good.  
14 Folks, we drove up here through terrible traffic on  
15 I-89. There was congestion. I gather it's  
16 construction you're dealing with. So make it worth  
17 our while.

18                  All right. The list hasn't gotten to  
19 me yet, so that gives me a little more time to  
20 chitchat with you. We have asked Ms. Dimitruk to --  
21 did I say it right?

22                  MS. DIMITRUK: Yeah, you did.

23                  COMMISSIONER TIERNEY: Thank you.  
24 That's -- boy, I had the country on the tip of my  
25 tongue and now it's gone again. I want to say that's

1 from the Caucasus area. It's not Russia, I know  
2 that.

3 MS. DIMITRUK: No, it's not.  
4 Ukrainian. It's definitely not Russian.

5 COMMISSIONER TIERNEY: Thank you. It's  
6 a Ukrainian name. Lord, what a mistake that would  
7 have been. Anyway, I grew up in Germany. I am an  
8 American, but I did grow up in Germany. My  
9 grandfather decided since I was in Germany I might as  
10 well go to a French school, so I learned all these  
11 languages, and I can't punctuate in any of them, but  
12 it's something of a hobby of mine to try to say the  
13 name right. Because I'm sure you've had this  
14 experience in your own lives, you may be wrong about  
15 a lot of things; if you at least say somebody's name  
16 right, they will give you some benefit of the doubt.

17 Anyway, Ms. Dimitruk.

18 MR. VOEGELE: As a member of the  
19 regional Planning Commission why don't you just call  
20 her Catherine the Great.

21 COMMISSIONER TIERNEY: Catherine the  
22 Great; that's excellent. And we should refer --

23 MS. DIMITRUK: That's Russian.

24 COMMISSIONER TIERNEY: And St. Albans  
25 ain't no Potemkin village; right? But I like the

1 spirit of the comment. I'm sure she is great.

2 So anyway, the Empress here is going to  
3 be giving you a short presentation about the plan.  
4 And after that I will chase down this list, and we  
5 will go through the people who have signed up to  
6 speak. And then I will make a couple more passes and  
7 try to get you to dance again because you're worth  
8 hearing from. And of course, should you change your  
9 mind and find after I have gone home that you really  
10 would like to say something, nonetheless you're  
11 welcome to send me an E-mail. No tweets; right? No  
12 tweeting, but please feel free to write us letters,  
13 give us a call, and let us hear from you. We have to  
14 do something about this folks because we have an  
15 E-mail here but folks can't see it. So we need to  
16 figure out how we communicate that to folks. And I  
17 don't think if I say PSD.planning.standards@vermont.  
18 gov that that's going to resonate with most of you;  
19 right?

20 So however, if you call Dan Potter at  
21 Vermont.gov or send him an E-mail, he'll get us what  
22 we need. One last formality before we begin.

23 My colleague of many years, Ms. Kim  
24 Carson -- Sears. She is my colleague of many years.  
25 She has another person she works with named JoAnn

1 Carson and I've sat in so many hearings with the two  
2 of them that they are one person to me. I would be  
3 lost without them. They write transcripts of these  
4 hearings. They are the loveliest people you've ever  
5 met, and Kim has joined us tonight and will  
6 transcribe this. And the hearing will be the -- the  
7 transcript will be available for you to look at if  
8 you care to see it. It will be on our website in  
9 short order.

10 We would ask you when you do speak to  
11 come forward and to speak your name. And spell it if  
12 necessary for Ms. Sears, S-E-A-R-S. Catherine the  
13 Great. Will you take it over?

14 MS. DIMITRUK: Sure. Happy to.

15 COMMISSIONER TIERNEY: Okay, thank you.

16 MS. DIMITRUK: Hi everybody. Thanks  
17 for coming tonight. Some of you have seen this  
18 presentation before maybe a few times. And for some  
19 of you this is brand new. I'm just going to take a  
20 few minutes to talk to you about the Northwest  
21 Regional Plan and focus specifically on the energy  
22 section of the regional plan. Okay. Sorry, excuse  
23 me. There we go.

24 So the Northwest Regional Planning  
25 Commission like all regional planning commissions in

1 the state has adopted a regional plan, and state law  
2 dictates what needs to be in the regional plan. And  
3 there are 11 sections that need to be in there  
4 commonly called elements. The Northwest Regional  
5 Planning Commission had a regional plan that we  
6 adopted in 2015. In July of 2015. We then went  
7 through a process of amending that plan last year to  
8 incorporate a brand new energy section. When we did  
9 the energy plan we did two things. We did a  
10 stand-alone energy plan, and then we also  
11 incorporated that -- the summary of that plan into  
12 the body of the overall regional plan. So we have  
13 two different documents. One is a summary, and one  
14 is a really, really thick energy plan.

15 All of the sections are interrelated  
16 though when you think about energy. It relates to  
17 transportation, it relates to land use, it relates to  
18 natural resources, it relates to the economy. So all  
19 of it's interrelated. So even though we focused on  
20 energy we really consider all of the sectors.  
21 Operator error here tonight.

22 In addition to the required elements of  
23 the regional plan there are state planning goals that  
24 all the regional plans must address, and they range  
25 from a diverse economy, affordable child care, to

1 protecting natural resources. So the focus of this  
2 tonight is efficient energy use and renewable  
3 resources. So again, these are all interrelated.

4 But tonight we are going to focus on  
5 the energy piece. To develop the regional plan we  
6 went through a two-year process working with the  
7 regional energy committee of the Northwest Regional  
8 Planning Commission, the regional planning committee  
9 of the Northwest Regional Planning Commission and our  
10 board of commissioners. Our board of commissioners  
11 is made up of two representatives from each of the  
12 municipalities in Franklin and Grand Isle counties.

13 Additionally, we held numerous public  
14 meetings and public hearings, and we presented at  
15 lots of other meetings, gatherings of other groups  
16 and individuals to get feedback and input on the  
17 goals and policies and the charges of the energy  
18 plan.

19 The Northwest Regional Planning  
20 Commission was one of three pilot regions that  
21 initially started working on our regional energy plan  
22 prior to the passage of Act 174 that the Commissioner  
23 referred to in her presentation, and the purpose of  
24 our starting early was to really demonstrate to the  
25 then Public Service Board and policy makers that if

1 you did a detailed energy plan, it will be worth  
2 giving municipal and regional entities additional say  
3 in the permitting process. And additionally it gave  
4 us the opportunity to really work together to figure  
5 out how we are going to help the State of Vermont  
6 accomplish its energy goals.

7 The primary one that we focused on was  
8 90 percent of our energy needs bought from renewable  
9 energy by 2050 often referred to as 90 by 50. This  
10 is -- it's hard to see this one. This is just a  
11 breakdown of how these goals are going to be  
12 achieved. You can see 25 percent of our greenhouse  
13 gases will be reduced by 2012. 50 percent by 2028,  
14 and 75 percent by 2050. So in addition to the  
15 renewable energy goals, there is a series of  
16 greenhouse gas goals that we are considering. And it  
17 talks about the regional plan. Really address how we  
18 are going to help accomplish those goals in housing  
19 rehab, transportation, energy use, and retrofits.  
20 And I'll get into that a little bit more.

21 So the regional energy plan had several  
22 sections. It looks at regional energy use, energy  
23 targets, goals and implementation and then talks a  
24 little bit about some of our implementation  
25 challenges. In terms of regional energy use, we



1 spent a lot of time looking at the data and trying to  
2 come up with the best compilation of data working  
3 with many members of our regional energy committee  
4 who are here tonight who spent significant time  
5 working with Taylor Newton who is away on vacation  
6 and couldn't be here tonight. He was a staff member  
7 primarily responsible for this. And what we found is  
8 this breakdown of space heating, energy use that fuel  
9 and oil and kerosene is the highest use area. And  
10 this would be important later on when we talk about  
11 how we are hoping to shift our energy use as we move  
12 forward.

13 When it comes to the transportation  
14 area, many of you probably know intuitively that our  
15 region has really high commute times and distances  
16 versus the national average and even the state  
17 average. We have a huge significant portion of  
18 commuters that travel to Chittenden County. (Lights  
19 went out). I feel like someone is moving in the  
20 back. We have a large group of commuters that  
21 commute into Chittenden County. We have limited  
22 public transit resources that we really hope will  
23 grow over time, but transportation use is really one  
24 of the largest energy sectors in our region and one  
25 that we will focus on in terms of reducing our energy

1 use.

2 When you look at electric use and  
3 generation, you can see that within the region  
4 already we have a total of almost just over 98  
5 megawatts of energy that's being produced, and we  
6 have a proposed capacity of an additional 75  
7 megawatts, primarily in the solar area with 54  
8 megawatts proposed, and then the Swanton wind project  
9 which is about 20 megawatts proposed. So on the  
10 left-hand column is what we actually have currently  
11 for generation capacity, and the right-hand column is  
12 what's proposed and still going through the  
13 permitting process.

14 MR. LANG: Dustin Lang. Should I wait  
15 until the end?

16 COMMISSIONER TIERNEY: Let's make it  
17 Vermonty.

18 MR. LANG: The present wind generation  
19 is Georgia Mountain. Georgia Mountain's turbines are  
20 split between Milton and Chittenden County and  
21 Georgia and Franklin County. How do you count that?

22 MS. DIMITRUK: The turbines that are in  
23 Franklin County are counted in those numbers.

24 MR. LANG: So only half. Thank you.

25 MS. DIMITRUK: You're welcome. Great

1 question.

2 COMMISSIONER TIERNEY: Catherine, I  
3 don't suppose you could put the computer on the other  
4 side. I'm just so nervous for you tripping over this  
5 thing.

6 MS. DIMITRUK: I had stitches related  
7 to an accident like that. I don't have much longer  
8 to go, so I'll be fine.

9 COMMISSIONER TIERNEY: Fair enough.

10 MS. DIMITRUK: The next thing we have  
11 90 by 50, I mentioned earlier, we have this existing  
12 energy use. We looked at what do our targets need to  
13 be for the energy sectors to get to the 90 by 50. We  
14 are looking at two ways. One is to reduce our  
15 overall energy consumption through efficiency,  
16 technology changes and conservation. And also to  
17 shift our energy use from fossil fuel to primarily  
18 electricity that's generated through renewable  
19 sources. And so I'll show you what this looks like.

20 The details of this aren't important.  
21 It's really the trend I want you to pay attention to.  
22 So if you look at the far left-hand column, that's  
23 our energy use in 2010. And electricity is the red  
24 block on the top. And then if you go all the way  
25 down to 2050 you'll see the red block on the top is a

1 lot bigger. All that gray and white hashed out area,  
2 that's the energy we are not going to use. So we are  
3 projecting that our energy -- total energy use will  
4 decrease by that much by 2050 through technology,  
5 efficiency, conservation and will shift to  
6 electricity by that big of a shift.

7 Here's an example of what this looks  
8 like in terms of space heating. Same thing. The red  
9 block at the top is electricity, the left-hand column  
10 is 2050 current use. The far right-hand column is  
11 2050 future projected use. So even though we  
12 anticipate population will grow, housing units will  
13 grow, our economy will grow, we still expect the  
14 conservation and technology that our total energy use  
15 for space heating will decrease, and the portion that  
16 is done through electricity will increase.

17 MR. TREMBLAY: Can I ask a question?  
18 Gil Tremblay. It's nice to produce electricity, but  
19 you're not going to make everybody use that  
20 electricity. Right now we are producing a lot of it  
21 now with solar panels in the winter months, but  
22 people aren't going to use it. We are probably  
23 producing enough now. Because we are selling it all  
24 out of state. Right?

25 MS. DIMITRUK: We are not though.

1 MR. TREMBLAY: Well we are selling most  
2 of it out of state.

3 MS. DIMITRUK: Not all of it's going  
4 out of state. And Vermont is part -- I'll try to  
5 answer this. You jump in if I get this all wrong.  
6 When we looked at our energy production, because  
7 Vermont is really part of a larger energy region, say  
8 the New England region, the New England power pool,  
9 we tended to not necessarily focus on whether a  
10 megawatt of power generated here is used here because  
11 it all gets fed to the regional pool. And we pull,  
12 we push; other states pull and push. We pull from  
13 Canada a lot. And so we tended not to focus so much  
14 on whether a specific solar panel energy is used by a  
15 specific home in this region. But whether in total  
16 what we generate can offset what we made.

17 MR. TREMBLAY: We are going to be using  
18 electricity for the big cities and not Vermont.

19 MS. DIMITRUK: We didn't look at it  
20 that way. We looked at what would we need to produce  
21 to serve our needs even if we recognize that that  
22 gets thrown into the bigger pool.

23 MS. DESLANDES: Michelle Deslandes. D-E  
24 -S-L-A-N-D-E-S. If that's the case, then Vermont is  
25 a small state. And if you're doing a lot of

1 commercial projects, how does that make it fair to us  
2 if another state is bigger and they are not producing  
3 as much?

4 MS. DIMITRUK: That's -- that's a great  
5 --

6 MS. DESLANDES: Vermont is small, and  
7 it seems like all of a sudden it seems like there is  
8 a lot of push for big commercial projects, whether it  
9 be solar or wind or whatever. But if you're using so  
10 much of Vermont for that, and we are giving more, why  
11 -- how do we find that balance?

12 MS. DIMITRUK: That is a great  
13 question. And that is one of the things we looked at  
14 in this regional plan too is what is the balance.  
15 And I'll talk about it in a minute in a little more  
16 detail, but one of the things we looked at is where  
17 does it make sense to actually have new power  
18 generation within the region. Where does it make  
19 sense to definitely not have it, and what should our  
20 targets be for new generation in relation to what our  
21 actual needs are in the region, but recognizing we  
22 are part of the overall global power pool and making  
23 sure that fairness is part of the consideration.

24 So it's a great question. I'll talk  
25 about it a little bit in a second and hopefully get

1 to your answer, but ask again if I didn't.

2 MR. POIRIER: Todd Poirier. Quick  
3 question. I'm a contractor and I see a new trend in  
4 the state. Everybody sees the apartment buildings  
5 built all over. It seems to be the new housing,  
6 apartment buildings. I haven't yet seen any new  
7 technologies to utilize electricity for heating  
8 spaces. It's all still done with natural gas and  
9 other types of fuel. And I'm wondering with that  
10 large expanse in heating, what type of devices,  
11 equipment did you guys come up with that is going to  
12 be creating the heat for these spaces? I don't see  
13 it in the market commercially.

14 MS. DIMITRUK: The current, newest  
15 technology is electric heat pumps that are utilized  
16 and are very efficient. I anticipate that we will  
17 get even more newer technology. We are talking about  
18 a projection to 2050 which is 32 -- 33 years from  
19 now. And think back 33 years to where we were in  
20 terms of energy technology, and imagine where we  
21 might be.

22 So I don't think I know yet what that  
23 will look like by 2050. But I think there is  
24 definitely a trend towards some of the new buildings,  
25 especially those being constructed with public

1 dollars involved in it through grant programs or  
2 other support to really use the more energy efficient  
3 heating sources including electric heat pumps.

4 MR. POIRIER: The only driver of that  
5 would be if that energy is cheaper than currently  
6 available.

7 MS. DIMITRUK: Yeah. The market forces  
8 on energy --

9 MR. POIRIER: Or the technology will  
10 not come.

11 MS. DIMITRUK: The market forces that  
12 impact energy choices are something that we kind of  
13 considered as being bigger than what we could tackle  
14 in terms of the regional plan, but it definitely is a  
15 driver.

16 MR. TREMBLAY: Natural gas must be  
17 clean energy; isn't it?

18 MS. DIMITRUK: It depends on who you  
19 ask and specifically which area of clean you're  
20 focusing on.

21 MR. DESLANDES: I'm Luc Deslandes. I'm  
22 a contractor doing HVAC. And we do put in a lot of  
23 heat pumps similar to what you're talking about. And  
24 --

25 MS. DIMITRUK: Yeah.



1 MR. DESLANDES: And a lot of them only  
2 last 10 or 15 years or less. Now is the newer  
3 technology going to get better where these are going  
4 to last longer? Because if they don't, my preference  
5 would be oil-fired burner or natural gas that lasts  
6 25, 30 years, versus a heat pump that doesn't produce  
7 enough heat in the middle of the winter, especially  
8 Vermont winters. You definitely need another source.  
9 And are these going to get better or are they not?  
10 Because to me I don't see it getting any better.

11 A lot of the heat pumps that I've put  
12 in -- I do a lot of the commercial side -- we always  
13 put a unit up on the roof that supplies heat, and  
14 they are using the heat pump as a secondary --

15 MS. DIMITRUK: Oh interesting.

16 MR. DESLANDES: -- to throw off a  
17 little bit more heat.

18 MS. DIMITRUK: Yeah.

19 MR. DESLANDES: Like I said, they only  
20 last 10 to 15 years or less. There is some that I've  
21 replaced two years down the road because they are  
22 defective. And back in the '80s, if I remember  
23 right, they were pushing electric heat in my parents'  
24 home and saying it was going to be cheaper and  
25 everything else. And my parents were paying over

1 \$400 a month year round.

2 COMMISSIONER TIERNEY: Just as a  
3 reminder, because we are transcribing, for the  
4 benefit of the record, we just need people to speak  
5 one at a time. I hate to say it because I know it  
6 shows engagement, and that's a good thing. So let's  
7 just give it a shot, one at a time.

8 Now I believe Mr. Deslandes, you're  
9 still speaking; right?

10 MR. DESLANDES: Yes.

11 COMMISSIONER TIERNEY: Have you said  
12 what you need to say? We were in the '80s, and your  
13 folks were being charged four hundred a month all  
14 year long.

15 MR. DESLANDES: What I'm getting at is  
16 this electricity going to be cheaper for us in the  
17 future? Are these heat pumps going to last longer?  
18 Are they going to be primary? Are they going to give  
19 us the heat that they should give us or not? Because  
20 if they are not, why are we pushing it when it's not  
21 working. And why are we pushing these wind turbines  
22 and solar when it's only going for the money that our  
23 government is giving them just to buy the RECs.

24 MS. DESLANDES: I would like to add to  
25 that as well. If you think of, like I said, 30-plus

1 years all the solar and turbines that were put in now  
2 is not going to last that long. And if they do, they  
3 are not going to run at the capacity that they are  
4 running right now when they are brand new. Our  
5 technology keeps changing, so we know that things  
6 could be either made smaller -- I can remember when  
7 we moved in our house we had the big satellite TV  
8 thing. Now they are little ones that are on your  
9 house. It could be the same thing with turbines or  
10 solar or whatever it may be.

11 So I just in my own opinion I feel like  
12 we are pushing so much to try to meet a goal and  
13 doing so much to our land to get there, but in that  
14 same process a lot of it's going to change in the  
15 next 30 years. So why are we just -- I can see  
16 meeting a goal, but why can't we do it not so  
17 quickly?

18 MS. DIMITRUK: And I will note that in  
19 our regional plan when you get into the nitty-gritty  
20 details when we project out the new renewable energy  
21 resources that we expect this region to need, we  
22 tended to back load our projection to closer to the  
23 2050 horizon with that expectation that technology  
24 and efficiency is changing rapidly, and recognizing  
25 we don't need to rush in and solve everything today.

1 And in fact we probably don't want to.

2 MR. DESLANDES: It seems like that's  
3 what they are trying to do though. They are pushing  
4 to put these turbines in. They are pushing to put  
5 these solars in just to get the subsidy that the  
6 government is offering. If the government was  
7 offering this money -- which to start with this money  
8 was supposed to be for the homeowners. And now all  
9 of a sudden it's for commercial.

10 MS. DIMITRUK: I'm going to keep going.  
11 Because that gets beyond my area of --

12 MR. DESLANDES: Right.

13 MS. DIMITRUK: -- being able to really  
14 address the regional plan, the whole market forces  
15 behind the development. So I'm going to keep going  
16 and just talk a little bit more about what we looked  
17 at.

18 Transportation is the biggest area. So  
19 we just spent sometime talking about heating, but  
20 really transportation is the biggest area where we  
21 see energy use declining, and that's achieved through  
22 two things. One is more efficient vehicles. And  
23 less driving.

24 So the primary way though is more  
25 efficient vehicles. And that's both with combustion

1 engines becoming more efficient as well as switches  
2 to hybrid and plug-in hybrid and electric vehicles.  
3 And that switch is tending to happen naturally as the  
4 technology increases. I think that inexpensive gas  
5 prices has slowed that a little bit, but technology  
6 is happening. You see some car companies already  
7 saying all new cars they are going to produce are  
8 going to be all electric. So the technology is  
9 changing. It's getting more efficient. It's getting  
10 more effective. And we really see by 2050 that we  
11 will be able to achieve in this region a big decrease  
12 in energy use for transportation.

13 And then when you look at where we  
14 expect our electric generation to come from, on the  
15 left-hand side is 2010, and then the right-hand side  
16 is 2050. And you remember back when we had the  
17 stacked bars with the red box at the top, that was  
18 electricity, and it got bigger as we got to 2050.  
19 That related to this. That's why by 2050 we expect  
20 to be producing more electricity.

21 And you'll see the biggest place that  
22 we expect to see growth is in hydro, in solar, and  
23 then a small growth in wind. And I'll talk about  
24 that where we see that next.

25 So when we look at our generation, and

1 again you look into the details of the plan you see  
2 the targets headed more toward the 2050 end, but we  
3 really looked at -- for our generation targets really  
4 focusing more on the solar area than on the wind  
5 area. We are looking at by 2050 to have 19 new  
6 megawatts of wind, 10 new megawatts of hydro  
7 primarily through efficiencies at existing hydro  
8 facilities, and 208 megawatts of solar. And when I  
9 first saw that 208 megawatts of solar number that  
10 seemed really big to me, but then we did this  
11 analysis to really look at what that meant in terms  
12 of the region and our land mass and our available  
13 land.

14 So when you look at this big circle,  
15 this represents the size of the overall land mass in  
16 Franklin and Grand Isle counties. This green circle  
17 represents the amount of land that we have been able  
18 to identify is a prime location to put solar  
19 development. So it has the right facing slope, it  
20 has good access to sun basically. And then if we  
21 achieve that goal of 208 new megawatts of solar  
22 generation, this little tiny white dot in the middle  
23 of the green dot is the equivalent amount of land  
24 area in the region that we need to be taken up with  
25 solar. So that gives you an example of the scale of

1 what that means in terms of impact on landscape in  
2 the region.

3 Now to achieve this we have a lot of  
4 energy goals in the plan focusing primarily on using  
5 demand-side management, which we have talked about,  
6 to reduce electricity demand, to look at fuel needs  
7 and fuel bills, and transition the power and to  
8 really look at holding our vehicle miles traveled  
9 down, and to actually decrease our transportation  
10 energy use.

11 We are also looking at passenger rail,  
12 hopefully, and freight rail increases in the future  
13 to increase the share of energy that's used for  
14 transportation that is renewable rather than fossil  
15 fuel based.

16 And then finally this generation  
17 capacity increase that we just talked about. And the  
18 final thing I wanted to stress about this is when we  
19 looked at our projections of meeting this goal, we  
20 figured out the mix of solar and wind, and we really  
21 focused on solar heavy and wind light in terms of the  
22 mix of renewables. And we also have a policy in our  
23 regional plan that says that based on analysis that  
24 we did that looked at where wind can be generated,  
25 where our resources are that we want to protect, and

1 balance those out, that there is really no ideal  
2 place that we felt we should map for new industrial-  
3 scale wind. And that only projects that are tower  
4 heights 100 feet or less would comply with the  
5 regional plan.

6 And so if we do get this approval from  
7 the Department of Public Service, that policy  
8 guidance will be considered in the permitting process  
9 and given due deference --

10 COMMISSIONER TIERNEY: Substantial  
11 deference.

12 MS. DIMITRUK: -- substantial deference  
13 rather than due consideration.

14 COMMISSIONER TIERNEY: There you go.

15 MS. DIMITRUK: So that is an important  
16 policy piece that the Board of Commissioners has  
17 worked on and put in the regional plan.

18 Moving forward we are going to be  
19 working with municipalities in the region to do their  
20 own local energy plans. We are working with four of  
21 them now and will be working with another four next  
22 year. If a municipality in the planning process  
23 identifies a location they feel is appropriate for  
24 the larger-scale wind projects, then we will consider  
25 that and look at amending our regional plan



1 appropriately, but we really thought that was a  
2 locally-based decision that should come up through  
3 the local planning process.

4 MS. LANG: Christine Lang. One comment  
5 on that. In reading your plan, what I really like in  
6 that section where you talk if a local plan wanted to  
7 have it there, you said that you would also look at  
8 the surrounding communities. And I think that that's  
9 very important that you're, you know, just because  
10 this community wants it, it's going to affect other  
11 ones, and you can discuss it with all the  
12 communities. I think that's very important.

13 MS. DIMITRUK: Thanks.

14 MS. DESLANDES: And when is that --

15 COMMISSIONER TIERNEY: Could you say  
16 your name at least? I'm sorry.

17 MS. DESLANDES: Michelle Deslandes.

18 COMMISSIONER TIERNEY: Thank you.

19 MS. DESLANDES: When do they make the  
20 decision? You said they have to -- when is that  
21 coming up?

22 MS. DIMITRUK: So we have adopted our  
23 regional plan now. So if there are already permit  
24 applications now, it will be given due consideration.  
25 And what is your time frame for making a decision

1 about our regional plan?

2 COMMISSIONER TIERNEY: Right. So by  
3 law we have I think 90 days to review the plan. And  
4 so by our math, that 90-day period is up on September  
5 20. Is it 90 or 60 days? 60 days not 90. There we  
6 go. And so anyway the date is September 20. So you  
7 can expect a decision by then.

8 MS. DIMITRUK: So that's an overview of  
9 the regional plan. I did bring copies of the full  
10 energy plan, the full regional plan, and then a  
11 summary of the energy plan, and those are on the  
12 table there that you can freely take if you haven't  
13 gotten one before. And it's also on our website.

14 COMMISSIONER TIERNEY: Excellent.  
15 Thank you so much for that presentation.

16 At this time I will start by taking the  
17 public comments. Sounds like an air conditioner  
18 kicked on. Can we still get by without  
19 amplification? Does that work? May -- what do you  
20 folks think would be best in terms of how we take  
21 comment from you? Would you like to simply speak  
22 from your seats, or would you like to have a  
23 designated place to go to so that you can address  
24 your fellow citizens? What do people think?

25 MR. LANG: How about just standing in

1 place?

2 COMMISSIONER TIERNEY: You want to  
3 stand in place says Mr. Lang. Anybody else?

4 MR. DESLANDES: Sounds good.

5 COMMISSIONER TIERNEY: Ms. Deslandes,  
6 do you expect to speak?

7 MS. DESLANDES: I don't know. It  
8 depends on what everybody else has to say.

9 COMMISSIONER TIERNEY: Very good. Mr.  
10 Buermann, is it?

11 MR. BUERMANN: Yes.

12 COMMISSIONER TIERNEY: So you'll go  
13 first and you'll set the example. How's that? Do  
14 you want to step to the front?

15 MR. BUERMANN: I'm going to turn around  
16 so my back isn't to everybody.

17 COMMISSIONER TIERNEY: Why don't we  
18 follow a policy you do what you're most comfortable  
19 doing. If it creates a problem, we will settle that  
20 problem. How's that?

21 THE WITNESS: Bob Buermann. B-U-E-R-M  
22 -A-N-N. I'm on the Northwest Regional Planning  
23 Commission from South Hero. I was the chair of the  
24 energy committee and I'm chair of the regional  
25 commission itself. So full disclosure of all my

1 roles. And actually I've also -- we started the  
2 first phase of energy committee I lost count, six or  
3 seven years ago, and I actually chaired that at the  
4 beginning also.

5 So I obviously am very supportive of  
6 the plan. As Catherine said, we spent two years plus  
7 in evaluation. In comment back to some of your  
8 questions, the committee had a lot of discussion down  
9 those paths also and thought through those concepts  
10 quite a bit in terms of how does it really apply,  
11 what do we have control over, can we tell the state  
12 what to do or not to do, again telling us whether we  
13 need heat pumps or not. We really tried to step back  
14 and what do we need for ourselves and what did we  
15 need to generate for ourselves.

16 I think what you saw there was what we  
17 said was energy necessary to support our region and  
18 what our goals were. We didn't talk about other  
19 people coming in to try to do larger pieces, so at  
20 least from an energy need picture. From a land use  
21 picture we really tried to look at what fits in the  
22 roles in our landscape and what we can legitimately  
23 do in places without telling people what they can't  
24 do on their land at the same time. That balance. I  
25 mean I'm a farmer. I've got a large piece of land.

1 I don't like people telling me what I can and can't  
2 do. And we took that into account as we looked at  
3 what's appropriate for land use within sectors.

4 If you go through planning there is a  
5 lot of wildlife areas or even designated conservation  
6 areas by towns that we said those are not appropriate  
7 places to do things. Plan doesn't support those. So  
8 we tried to balance a lot of the concerns that you've  
9 mentioned already.

10 So I guess my support is I'm very much  
11 in support of the plan. I feel I have been involved  
12 quite a bit, and we had a lot of community  
13 involvement to balance a lot of the issues and  
14 concerns that people have brought up in the past.

15 COMMISSIONER TIERNEY: Well thank you,  
16 Mr. Buermann. I appreciate that. I'm guessing your  
17 name is Patty Rainville.

18 MS. RAINVILLE: Is that a good thing or  
19 a bad thing?

20 COMMISSIONER TIERNEY: I think it's a  
21 lovely name, and I was looking forward to hearing  
22 from you, Ms. Rainville, so the floor is yours.

23 MS. RAINVILLE: There is actually two  
24 of them.

25 COMMISSIONER TIERNEY: Which one's

1 Patty and which one's Rainville?

2 MS. RAINVILLE: There is a Patty  
3 Rainville who is younger, rounder, and blonde who  
4 does everything that I do. Just for a giggle and a  
5 grin I got a call of hers maybe six months ago. A  
6 little old lady waiting for a doctor to come -- a guy  
7 to come and take her to her doctor's appointment. I  
8 knew exactly what had happened, so I said, oh, wow.  
9 I got her name and number. I said someone will get  
10 right back to you. I called the other Patty  
11 Rainville. I said this is what happened. And I  
12 thought this is the coolest thing ever.

13 COMMISSIONER TIERNEY: This is one of  
14 the hidden pleasures of living in Vermont. I just  
15 got back from a wedding in Minneapolis, and I thought  
16 you poor things, you live in this anonymous city.  
17 Something like that happens here all the time.

18 MS. RAINVILLE: Well basically to bring  
19 us to today, when I walked in and I saw you sitting  
20 there, I thought, I know this woman.

21 COMMISSIONER TIERNEY: Her again?

22 MS. RAINVILLE: No, no. I said I know  
23 this woman. And I thought why do I know this woman?  
24 And then I remembered the way I felt from what you  
25 said, and I still don't know what your name is, but

1 what matters to me most is what you said and how I  
2 felt about it. It was a fairly recent hearing.

3 COMMISSIONER TIERNEY: Would this be  
4 the LCAR hearing where I spoke about the rule and the  
5 need to preserve the setback?

6 MS. RAINVILLE: Yes. And you spoke  
7 with logic, reason --

8 COMMISSIONER TIERNEY: It was an off  
9 day for me.

10 THE WITNESS: -- and heart. That's  
11 just not -- just so you know how important --  
12 everybody knows how important that is. That's the  
13 first thing I thought of was how I felt and how  
14 comfortable I felt and I thought, wow, we have a  
15 chance.

16 COMMISSIONER TIERNEY: Indeed, indeed.  
17 Well my name is June, just like the month. Tierney.  
18 And it was my pleasure to speak on behalf of the  
19 citizens that our agency represents and the viewpoint  
20 that was relayed.

21 So tonight is your night. So let's  
22 hear from you.

23 MS. RAINVILLE: So one of the reasons  
24 why I'm involved as I am with this obviously is  
25 because I'm third generation, fourth -- multi-

1 generation Vermont. I've lived in, on and around the  
2 lake my entire life. I'm also an eight-year member  
3 of Friends of Lake Champlain, so I know the  
4 connection really well between the forest and the  
5 lake. And if anybody has missed it, you might want  
6 to go to my Facebook page. I posted seven, eight,  
7 nine months ago pictures of my backyard and a picture  
8 of the Deerfield project. You only have to look  
9 there to know why we all feel the way we do.

10 And in my mind it feels like this is  
11 very common to hear about how much we need to produce  
12 more electricity and more energy when, in fact, I  
13 think there is way too little discussion about  
14 conservation. And that's -- my friends that know me  
15 really well will be very pleased that I'm short-  
16 winded today.

17 (Applause).

18 COMMISSIONER TIERNEY: There we go.  
19 Now ladies and gentlemen, there is nobody else signed  
20 up to speak tonight. Can that be so? Folks from the  
21 back, Dr. Irwin, you have nothing to say? This is so  
22 unlike you.

23 If you have nothing more to say, this  
24 is the first call. The meeting is over. Here we go.  
25 Yes. May I have your name please?



1 MR. VOEGELE: First name is Albin. A-L  
2 -B-I-N. Last name is Voegele. V as in Victor, O-E  
3 -G-E-L-E.

4 COMMISSIONER TIERNEY: That's a good  
5 German name; isn't it?

6 THE WITNESS: Yes, it is. Albin is  
7 from the Latin meaning white, and Voegele is a little  
8 bird. So I'm the dove.

9 COMMISSIONER TIERNEY: As opposed to a  
10 hawk or a crow.

11 Mr. voegele: Basically I have a  
12 question. I understand that yesterday the government  
13 and the New England Governors met with the provincial  
14 premiers of the Northeastern --

15 COMMISSIONER TIERNEY: In Prince Edward  
16 Island. I'm just back from there, yes.

17 MR. VOEGELE: And there was discussion  
18 on energy.

19 COMMISSIONER TIERNEY: Yes, there was.

20 MR. VOEGELE: So I'm curious to what  
21 you learned and what you talked about, how that might  
22 impact not only the Department, but our regional  
23 plan.

24 COMMISSIONER TIERNEY: Well let me say  
25 whatever we discussed would have no impact on the

1 Department, because the Department was there to  
2 discuss the interests of Vermonters. And as I  
3 recall, the Governor met with Premier Couillard, and  
4 we also met with Secretary Beaton from Massachusetts  
5 who was the -- my equivalent basically. And the  
6 discussion was very much about, you know, regional  
7 energy needs and things that could be done to make it  
8 possible to implement the Governor's vision for  
9 energy, which as you know, is to import as much as  
10 Hydro-Quebec is willing to sell by way of supporting  
11 the energy needs of Vermont.

12 I should qualify this by saying that  
13 what we, as your government leaders, at times want  
14 isn't always necessarily everything that we are able  
15 to get. But it's important to reiterate those  
16 values. And I think that is one of the missions that  
17 the Governor was achieving by attending this meeting  
18 and having me in tow with him was to reiterate the  
19 neighborliness we feel with our Canadian counterparts  
20 and our colleagues to the south in Massachusetts.  
21 And it's very much along what Ms. Dimitruk was saying  
22 a moment ago about recognizing our role in the  
23 regional energy landscape.

24 But beyond that, there were no  
25 specifics that I could tie to your plan. And I might

1 add too that your plan, whether it's your region or  
2 your municipality is very much about your self  
3 determination, which is why I was encouraging you a  
4 moment ago to keep in mind that your time spent on  
5 participating, as you are tonight, is never wasted.

6 So this is about visioning what, you  
7 know, the next several years could look like. And  
8 this is an argument that I've made to the legislature  
9 a number of times. Goals and vision are things to  
10 steer by, they are not necessarily concrete things to  
11 get to.

12 Now I'm sure you're all aware of what's  
13 happening in Houston right now. And there is a  
14 significant consensus of folks who think that that  
15 reflects climate change. There are some folks who  
16 think perhaps it's caused by something else. It  
17 really doesn't matter. What matters is that these  
18 events are happening. They happened to us just a few  
19 years ago with Irene. And so there is a need to be  
20 thinking about a resiliency in our needs for energy  
21 and other things. And so as capable and caring  
22 people, because I'm going to wager most of you have  
23 kids and grand kids, it's our charge to care about  
24 the future and to think a little ahead about what  
25 tomorrow's generations are going to need.

1           But as Ms. Dimitruk said a moment ago,  
2 we have imperfect knowledge today. We can't know  
3 with absolute certainty today what is going to be the  
4 controlling condition tomorrow. I think -- was it  
5 Mr. Poirier or Mr. -- now it was Mr. Dessault, is it?

6           MR. DESLANDES: Deslandes.

7           COMMISSIONER TIERNEY: Deslandes.

8 Forgive me. Who was reminding us of the rage of the  
9 '80s when everything was going to be electrified.  
10 And Vermont's banks wouldn't lend you money for a  
11 mortgage unless you had baseboard heating, and then  
12 along comes my Department about that time saying, no,  
13 stop. No more electricity. Because it was causing  
14 the peak for our regional electric usage to spike.  
15 And what you probably do not know and should not have  
16 to know, but I will tell you, is that much of what  
17 you pay for kilowatthour on your bills is determined  
18 by that one day in the year when the utility has to  
19 go out and buy very expensive electricity in order to  
20 meet what's called peak demand, which an easy way to  
21 imagine that is that very, very hot day in August or  
22 July when the few people who own air conditioners in  
23 Vermont, no, when people turn on their air  
24 conditioners all at once. And the -- it just soars,  
25 it spikes for one hour one day, and boom, that sets

1 the price for the entire year. It can have a  
2 significant impact.

3 So the idea from my Department's  
4 perspective many years ago was to try to curb those  
5 peaks through what we call demand-side management or  
6 efficiency measures, which your plan deals with. And  
7 what do you know, 20 years later we are in a place  
8 now where the demand for electricity has come down.  
9 What people need to understand is the thing we really  
10 need to be focused on right now is our transportation  
11 sector and electrifying that sector because we need  
12 to get our greenhouse gases under control. And it's  
13 our cars that are emitting the most greenhouse gas  
14 that we have control over.

15 So I drove here tonight in a hybrid  
16 vehicle. I have to tell you it breaks my heart  
17 because I like my little five-speed manual  
18 transmission that I have on my VW Golf. It's a very  
19 incorrect car., but even I see in the end the driving  
20 experience is not materially different, the car got  
21 me here. And the idea that I might be able to plug  
22 my car in at home at night and use energy off-peak in  
23 order to get my car juiced up for the next day to get  
24 me to work is kind of appealing. Especially if it's  
25 going to ameliorate the problem for future

1 generations, and we are going to be facing things  
2 like Harvey and Irene, and we need to act.

3 So why am I telling you all these  
4 things? Because I really like you folks. And  
5 because you got me going. And because I was on  
6 Prince Edward Island. That's correct. And I'm a  
7 little tired from the travel because I had to get up  
8 at 3 o'clock in the morning to get home to be here  
9 tonight. That's how much -- that's how committed my  
10 staff is, and I am to doing this work and doing it to  
11 the best of our ability.

12 So one of the topics of conversation at  
13 that conference was about how we go about expanding  
14 electrification of transportation in our region. In  
15 other words, getting enough charging stations out  
16 there so that people can come down from Quebec City,  
17 for instance, with an electric vehicle, can actually  
18 be able to charge the vehicle on their way down  
19 through Vermont, spend money in your community, which  
20 is what we really want. And then take themselves  
21 down to Massachusetts, see how horrible it is down  
22 there, come back to Vermont.

23 Other questions? Dr. Irwin, you had  
24 time, didn't you?

25 MR. IRWIN: Actually wanted to make

1           sure -- Dave in the front raised his hand first. He  
2           should go before me.

3                       COMMISSIONER TIERNEY: Okay. David  
4           Butterfield. It's your turn, sir.

5                       MR. BUTTERFIELD: It's a comment about  
6           the development of the heat pump.

7                       COMMISSIONER TIERNEY: Yes.

8                       MR. BUTTERFIELD: If you look at the  
9           computer, the first computer I had was an IBM  
10          machine. That had DOS 01 on one side of a floppy  
11          disk. And that was in the early '80s.

12                      COMMISSIONER TIERNEY: Yeah.

13                      MR. BUTTERFIELD: And look at where we  
14          are now.

15                      COMMISSIONER TIERNEY: Thank you for  
16          bringing me back to the point of my rambling which  
17          was that our knowledge today is imperfect, but you do  
18          have to have a plan to take you forward.

19                      MR. BUTTERFIELD: Absolutely the best  
20          thing about having a plan is you've got something to  
21          change.

22                      COMMISSIONER TIERNEY: Something to  
23          talk about at town meeting day; right?

24                      MR. BUTTERFIELD: One other comment.  
25          My life was spent in gas turbine engines. And every

1 time they fly over, I sort of say that's my pension.  
2 Carry on, guys.

3 COMMISSIONER TIERNEY: There you go.

4 MR. BUTTERFIELD: But there is still  
5 service bulletins being issued on that engine I  
6 started developing back in 1957, '58. Still has the  
7 panic, and that's the world. And if you know  
8 anything about the selling of aircraft, the first  
9 people that buy the first airplanes off the line get  
10 deep discounts for a very good reason. Because the  
11 airplane passed all the rules, and it's released for  
12 production, but there is a back room of engineering  
13 guys that are working like hell on service bulletins  
14 to upgrade and make that airplane what it should have  
15 been in the first place, but you can't -- nobody has  
16 found a way of doing it. And Boeing and aerospace  
17 manufacturers has been a heck of a lot better at it  
18 in the last 10 years. That's just the nature of any  
19 engineering project, and heat pumps the same.

20 COMMISSIONER TIERNEY: Yeah. I think  
21 there are probably two sides to that at least.  
22 Right? One is the development of the project and the  
23 improvement of the technology that comes with  
24 experience. And then there is always the look-back  
25 where you say, hmm, in retrospect maybe we didn't



1 need to do it that way. Maybe we could have done it  
2 this way. And I think that's really where good faith  
3 comes into the process and being respectful of each  
4 other in conducting our conversations about how much  
5 progress we make at what pace.

6 We are grateful for those engines.  
7 There is no question. No question at all. Getting  
8 together in Prince Edward Island I'm sure will prove  
9 productive for the region in due course. It was  
10 facilitated by my taking four flights. 50 years ago,  
11 a hundred years ago, there wouldn't have been any  
12 such communication among the region. Now people were  
13 fine, but their lives might have been better had  
14 there been that kind of interpersonal connection,  
15 who's to say.

16 But I'm a big fan of taking things  
17 cautiously. I think it's in the American character  
18 to be progressive but not disrespectful of each other  
19 in that process. And to be mindful that history is  
20 always watching. Yes, sir.

21 MR. VOEGELE: If I can just follow up  
22 on this gentleman, it's ironic that I have never  
23 known that you were an engine -- engineer.

24 COMMISSIONER TIERNEY: An engine  
25 engineer.

1 MR. VOEGELE: My son-in-law is the  
2 chief engineer for the 737 Max jet engine. He has  
3 reduced his fuel consumption tremendously, but my  
4 point is that GE now has a program to look at engines  
5 that aren't dependent upon kerosene and other  
6 hydrogen fuels.

7 COMMISSIONER TIERNEY: Yeah. Isn't  
8 that something.

9 MR. VOEGELE: You and I can't see the  
10 future, but there are people imagining what that  
11 could be.

12 COMMISSIONER TIERNEY: Yeah. I think  
13 again the key ingredient is, now don't let this shock  
14 you folks, humility. It's to -- I mean poor Albert  
15 Einstein, incredibly gifted man, gives us laws that  
16 we still use today in thermodynamics and other areas  
17 of physics. And he watches his intellectual  
18 property, not property, but his intellectual  
19 achievement, the law of gravity and the like turned  
20 to the development of nuclear weapons and writes a  
21 letter to President Roosevelt saying, dear God, don't  
22 let the genie out of the bottle. But we know the  
23 president did. And I think there are many Americans  
24 very grateful that he did.

25 But quite sure that President Roosevelt

1 had some uneasy nights making the decision, and in  
2 the end he didn't get to make it, President Truman  
3 had to make it. But it was President Roosevelt's  
4 understanding that we had to develop the bomb that  
5 gave us the capacity, and I hope humility, to know  
6 when to do something and when not.

7 I'm really getting deep with you folks.  
8 You shouldn't let me talk like this. Dr. Irwin, I'm  
9 hoping you will steal the show from me, and then we  
10 will go home.

11 DR. IRWIN: Okay. Well first I just  
12 want to comment that I think it's great that you've  
13 got colleagues Grace and Potter.

14 COMMISSIONER TIERNEY: Indeed. Thank  
15 you. That's very clever.

16 DR. IRWIN: That's a good combination  
17 for Vermont.

18 COMMISSIONER TIERNEY: And I'm the  
19 musician in the crowd.

20 DR. IRWIN: You would be the  
21 Nocturnals.

22 COMMISSIONER TIERNEY: No, I need to be  
23 in bed. Go ahead.

24 DR. IRWIN: As a chair of the Planning  
25 Commission for the town of Bakersfield, I can tell

1           you that this process is exactly what our town  
2           appreciates happening. First it was a process where  
3           three regions took the effort to try to really  
4           understand energy use, energy needs and think  
5           progressively about how we can manage both. And then  
6           the legislature provided an opportunity for the  
7           regions to get this deferential --

8                           COMMISSIONER TIERNEY: Substantial  
9           deference.

10                          DR. IRWIN: Substantial deference.  
11           Yes. Thank you. And this is exactly what Vermont  
12           represents is an opportunity for people to talk about  
13           it, to get it reasoned out, to test it, and then once  
14           you realize that it's a good model, try to employ it  
15           everywhere else in the state.

16                          And I am very appreciative of the  
17           legislature for making this available to the towns,  
18           because we can't do it on our own. And then to have  
19           the regions come together to help the towns actually  
20           get it done for the region and then for those towns  
21           -- so it's a great effort. And as a member of the  
22           energy committee for this region, I can tell you it  
23           was a diligent one, and it was a very effective one.  
24           And I hope that you'll give the plan also substantial  
25           deference.

1                   COMMISSIONER TIERNEY: I will give it  
2 my profound and sincere consideration. You can bet  
3 on that.

4                   DR. IRWIN: Thank you very much.

5                   COMMISSIONER TIERNEY: My pleasure, and  
6 well said. Oh, yes. now your name?

7                   MR. TREMBLAY: The problem I've got --

8                   COMMISSIONER TIERNEY: I need to know  
9 your name first.

10                  MR. TREMBLAY: Gil --

11                  COMMISSIONER TIERNEY: Gil Tremblay;  
12 right? Okay.

13                  MR. TREMBLAY: There is a lot of  
14 reasons to use electricity. They are coming up with  
15 all kinds of ways to use electricity. We don't need  
16 to clear-cut 35 acres of mountaintop to put in a  
17 turbine. There has got to be better places than  
18 that. Why ruin all that nice land where the deer  
19 places, wetlands up there, all that stuff. That's my  
20 --

21                  COMMISSIONER TIERNEY: It says here  
22 you're part of Swanton wind opposition.

23                  MR. TREMBLAY: Right.

24                  COMMISSIONER TIERNEY: So you've made  
25 that point very clear. Thank you so much. Ms.

1 Rainville, yes?

2 MS. RAINVILLE: I just want you to know  
3 that Dave and I have served on FNLC for a very long  
4 time, and I've listened to him, and I've never seen  
5 him really hit the button like he did tonight. What  
6 we have been saying all along, what Gil just said,  
7 and what we have been saying right along is why would  
8 you destroy the top of a mountain with something that  
9 has maybe, maybe a shelf life of five to 10 years.  
10 And Dave drilled the point home beautifully.

11 COMMISSIONER TIERNEY: She just blew  
12 you a kiss. Well that was well said too.

13 Is there anybody else who would like to  
14 say something tonight? One, two, three; then you're  
15 done. Thank you very much folks.

16 (Whereupon, the proceeding was  
17 adjourned at 8:07 p.m.)

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I, Kim U. Sears, do hereby certify that I recorded by stenographic means the Public Hearing re: NWRPC's request for a determination of energy compliance, at the City Hall Auditorium, 100 North Main Street, St. Albans, Vermont, on August 31, 2017, beginning at 7 p.m.

I further certify that the foregoing testimony was taken by me stenographically and thereafter reduced to typewriting and the foregoing 54 pages are a transcript of the stenograph notes taken by me of the evidence and the proceedings to the best of my ability.

I further certify that I am not related to any of the parties thereto or their counsel, and I am in no way interested in the outcome of said cause.

Dated at Williston, Vermont, this 3d day of September, 2017.



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