STATE OF VERMONT
DEPARTMENT OF PUBLIC SERVICE

IN RE: COMPREHENSIVE ENERGY PLAN
HEARING

Public Hearing held before the Vermont Department of Public Service, at the Rutland Regional Medical Center, 160 Allen St., Rutland, Vermont, on October 29, 2015, beginning at 7:14 p.m.

PRESENT:
DPS Staff: Asa Hopkins & Ben Civiletti

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MR. ASA HOPKINS: We have first Tom Donahue and then Bill Laberge, and just so you know, the next person will be Roland Marx, then we'll work our way through and each time I'll just read off the next person. You want to come up just to make sure that you're close enough to the court reporter to hear you. We don't have a mic for people.

THE COURT REPORTER: Could you please all spell your names as well?

MR. ASA HOPKINS: Yes.

MR. TOM DONAHUE: My name is Tom Donahue, D-O-N-A-H-U-E. I'm the CEO at the Rutland Region Chamber of Commerce, and I'm a fourth generation Vermonter; my kids are fifth generation; and my grandkids are sixth generation. I wanted to thank you first for having this hearing in Rutland. We appreciate the convenience of it. I'm writing on behalf of the -- well, reading/writing on behalf the Rutland Region Chamber of Commerce. We represent over 500 businesses and organizations in the greater Rutland region.

We appreciate the opportunity to comment on the draft of the state's 2016 Comprehensive

Energy Plan being considered by the Vermont Public Service Department. We are very concerned with the absence of language supporting gas pipeline infrastructure expansion. We request the department restore the language supportive of the expanding natural gas infrastructure.

Natural gas is proven cost effective, reliable, and convenient to almost 50,000 Vermont customers over the five decades they've enjoyed natural gas expansion in Vermont. Such pipeline-based service should not be limited to the two counties where it is available now.

Further, we are very concerned with the elimination of the important endorsement of Rutland service that was included in the 2011 plan. We fully endorse the concept of providing pipeline infrastructure and service to 13,000 customers including thousands of households and vital businesses and institutions along the possible route connecting Middlebury to Rutland. The draft shifts emphasis on the importance of compressed natural gas, which is a good option

for some large users, but it is more expensive and cannot be provided to residents and households.

Last, but not least, we support a draft that recognizes the positive impact renewables can have and are having in Vermont. Renewable energy is having an increasingly important role in creating jobs in Rutland County and statewide. We are very supportive of that ongoing effort. As a strong organization of Vermont businesses; organizations; and homeowners, we respectfully request and urge you to reflect our needs and our opportunities in the final CEP document. Our future stability may depend on it. Thanks you.

MR. ASA HOPKINS: Bill Laberge and then Roland Marx.

MR. BILL LABERGE: So, it's Bill L-A-B-E-R-G-E, and I'm a solar installer in Dorset, and I just wanted to -- you mentioned net metering a couple of times, you know, that's been looked at a couple times since 2011, and I think that if we're going to get to 90 percent by 2050, the net metering programs has to expand even more. I think --

I understand that the legislature is going to be looking at it this year, and Green Mountain Power is looking at it, but right now utilities are bumping into the 15 percent cap.

Renewable energy projects in Hardwick Electric have come to a screeching halt because they hit their 15 percent cap. It looks like Green Mountain Power is probably going to hit their cap early 2016, January or February from what I'm told, and they're looking at ways that they can expand that.

So, I think we have a utility that is very forward-thinking in how they want to do renewable projects, and I think if the state is going to be forward-thinking, then net metering has to be one of the first things that they tackle. And I give my time to the next person.

MR. ASA HOPKINS: Roland Marx and then Peter Yankowski.

MR. ROLAND MARX: I think there is an awful lot of good stuff in the plan, but I still have a suggestion. I'm a panel owner in a solar farm in West Rutland that's VGVG, Vermont grown and Vermont green, that's truly

green. And I would like to make a suggestion that the Clean Energy Plan specify that all Vermont solar be VGVG but also is green, I mean, that's obvious, isn't it? But it's not. Large scale commercial solar, that was right, that's not green. They sell the renewable energy credits. Those are the green benefits that are associated with the energy produced from solar. You get a pile of money when you sell the rights, but the catch is, when you sell them, you're no longer green. You've given up the claim to do that. You've given it away to the buyer of the rights and the rights -- excuse me, and the buyer of the rights uses that to cover his pollution.

The trouble is, that large scale commercial solar, after it sells the rights; after it sells its claim to be green, still claims to be green, still has its energy content count towards the renewable goals of Vermont to get the 90 percent by 2050, that's wrong. That's not right at all. And the Clean Energy Plan has to contain a specification that all Vermont solar be VGVG, Vermont grown and Vermont green.

MR. ASA HOPKINS: Thank you. Peter Yankowski and then Kathleen Guinness. Everybody remember to spell your last name for the court reporter.

MR. PETER YANKOWSKI: All right. So, I'm Peter Yankowski. I live in Rutland Town and there's certainly been a lot of effort that's gone into this plan, 380 pages. I'm going to speak to something that's missing from the plan, and it is a sense of urgency to deal with the siting of industrial wind and solar and the sense -- the lack of sense of urgency to deal with the voice of communities and planting these things around the state.

Right now we have -- excuse me, right now we have an approval process going through Section 248 and Act 50 that effectively isn't working. As of September, there were fifty-nine 500-megawatt solar projects approved -- zero approved. Many towns have been negatively affected by this. When they go back to the Public Service Board, they're told by the chairman to go to the -- their hands are tied, to go to the legislature for help. When they go to the legislature, Tony

Klein says that there is either not a problem or go back to the Public Service Board.

The system we have isn't working. The regional planning individual, Ed Bove, he talked about what the priorities were. There's effectively nothing in the plan. In Section 5 it mentions there are problems. It mentions that they're difficult problems, but it doesn't do anything to solve the problem. It doesn't push. It mentions the governor's siting commission that completed its work in 2013. It's going to be another two years before you get anything out of that.

The siting task force is loaded with industry people. Seven out of ten are either from the industry or they work for the governor. I think the plan has to refocus and say something about how towns are affected by this. At this point there is effectively nothing in there. Thank you.

THE COURT REPORTER: Sir, would you please spell your last name?

MR. PETER YANKOWSKI: Y-A-N-K-O-W-S-K-I.

THE REPORTER: Thank you.

MR. ASA HOPKINS: Kathleen Guinness and then Jane Pappas and Rhonda Rivers is next. You said perhaps. Is that a, yes, or a, no?

MS. RHONDA RIVERS: Yes, I will.

MR. ASA HOPKINS: Okay. All right.

MS. KATHLEEN GUINNESS: Hi, I'm Kathleen Guinness. I'm from Poultney, Vermont. I'm a mother and a parent and a great lover of the flora/fauna of the world and of Vermont in particular. In particular, I'm a bird lover, and as a bird lover and a people lover, I'm very concerned about the rapidity of climate change in our state in particular.

This plan is quite comprehensive but it gives us until 2015 -- 2050 to make all of these changes. I believe the world plan was for 2030, and I think we need to speed up our plan quite a bit, but I'm also concerned that the carbon omissions rate is out of control and that we need to do something right away to stop it and probably the best and most effective way to do that is to set up a carbon

omissions tax which will give back to us all in one way or another.

I'm also familiar with permaculture, and I think that permaculture is a great way to protect our ecosystem. And I'd like to see something in this plan that would address that so that more of us can learn about permaculture and how to set something up along that line. Thank you.

MR. ASA HOPKINS: Thank you. Jane Pappas and then Rhonda Rivers.

MS. JANE PAPPAS: So, J-A-N-E, P-A-P-P-A-S, and I live in Ludlow. And I guess I'll just make the brief comment that one thing that I noticed in the plan is that a lot of what is discussed are incentives and ways to educate the public, and I think that there should be more emphasis on the mandates and carbon tax being one of those things. I think that really nothing can really change if there aren't mandates and, although, this isn't legislation, it is supposed to inform legislation. So, I think that that should be part of the plan, and I think that's probably the most important comment I can make.

MR. ASA HOPKINS: Thank you. Rhonda Rivers and then. Annette Smith, you were a perhaps. Are you a yes?

MS. ANNETTE SMITH: (Nodding.)

MR. ASA HOPKINS: Okay, so you'll be next.

MS. RHONDA RIVERS: Rhonda Rivers, R-H-O-N-D-A, R-I-V-E-R-S. I'm a resident of Mount Holly, and I have a three-something solar system on our property which we are planning on disbanding it somewhat.

I think one of the things that Vermonters don't think about -- the issues of siting raise strong feelings of pro and against, and I think something that a lot of Vermonters don't think about is, what are the trade-offs? There is no free energy. There is no totally clean energy. They all have costs in one way or another.

And I don't think the folks of West Virginia are pretty happy about having the tops of their mountains taken off so that the coal can be gotten out and generate things and much less the tailings and everything else left behind with the water generation. I just

-- there's no good energy and I don't think there is enough placed on that, and I think there's going to have to be some emphasis placed on that education so that people can validly make the trade-offs and decide what it is they want.

Everybody wants to have that light go on when they go over to the switch, but there's a cost generating it, and we have to balance the cost. And I think I would like to see more information in the plan that talks about that so that people understand it and realize that we all have to make those choices. Thank you.

MR. ASA HOPKINS: We have Annette Smith and then Shaina Kasper.

MS. ANNETTE SMITH: I'm Annette Smith from Danby. I'm Executive Director for Vermonters For Clean Environment. I have made a list of ten items.

Innovation and transparency. I don't think the plan is innovative enough. I'll give you an example. There is a solar project in Bridgeport that's using 9 acres for 2 megawatts. Most of the solar projects are using 15 acres for 2 megawatts. I think the

plan needs to create incentives for more innovative technologies that -- I understand the Bridgeport uses U.S. made panels. Well, most of what we're getting is Chinese. Our policies are leading us to the bottom of the barrel, not the top. There is no reason why we can't have every single solar array hooked up to a computer outlet that you can see exactly what's being generated. Same thing with wind, we need much more transparency. This is one of the big problems with this industry is, that it's not transparent.

Number two, choosing technologies going out to 2032, 2050. I have five. One minute left. Five years ago we didn't hear much about air sourcing pumps. I think that this is an aspirational plan that we can probably rewrite in five years a lot of different things. The state's role in the region, I think, needs to be much better outlined. You made a reference to us being part of the grid. Everyday we use about 800 megawatts. The region uses about 1,800 megawatts. I would like to see a discussion about our role and going forward especially that far out. What

is the idea, are we going to disconnect from the grid? Are we -- how are we going to integrate with the big grid?

Right now in the current system renewables equals natural gas. The more renewables we build, the more natural gas we need. I think there needs to be a more honest reflection of that in the plan. We are currently externalizing cost and, in particular, with noise pollution from wind projects; with lack of respect of solar developers, we need to be more accountable, and we need to have justice and fairness. And with new energy comes new opportunities.

Transportation. Again, I don't think the plan is innovative enough. We need a commuter rail system on the western corridor. We need to get out of our cars and be able to take the train. On strategy 2 on Page 295 it calls for health impact studies, that needs to be implemented right now. We have a disconnect between our policy makers, our regulators, our industry, our developers, and our towns. We need to come together.

We have a siting process based on lawyers

and experts and a lot of money, and we have an opportunity for community-based stakeholder processes which the Department of Energy is promoting which we have done effectively. We can all come together and do this, and this plan needs to promote those kind of innovative policies. Thank you.

MR. ASA HOPKINS: Okay. And I'll just kind of mention again, that in case you have more to say than the time allows, you can always send them separately or we'll get them to the court reporter. So, Shaina Kasper and then Chris Williams.

MS. SHAINA KASPER: My name is Shaina Kasper. It's S-H-A-I-N-A, K-A-S-P-E-R. I'm community organizer of Toxics Action Center. I'm originally from Richmond, now I live in Montpelier. I couldn't make the hearings near there, so I'm here now.

Growing up in Richmond I worked at On the Rise Bakery and Cafe which was really the heart of our community, but when On the Rise was built, they had to tear down a perfectly good building in order to rebuild a new structure 4-inches higher, thought it was

ridiculous but they had do it to be out of the 100-year floodplain.

I was back from college working at On the Rise when Irene hit Vermont. The rivers rose and kept rising. The water lapped in the door of On the Rise but it didn't flood and because of that it stayed open. The next morning I was manning the counter when neighbor after neighbor came in up to their hip in muck and, you know, got a scone and a slice of pizza, a beer. So, you know, I heard about everything in their basement that was turned to muck.

Thankfully, On the Rise was rebuilt to be just that, on the rise. They had to rebuild because they had to get ready for the 100-year flood, but here's the thing, a flood like this every 100 years is natural. A flood like this every generation or even less is not. But tackling climate change is important to me because I'm a Vermonter, because after my shift was over, I pulled on my muck boots and got a shovel and helped clean out basements and tear down houses that were falling down. I -- because I don't know what my hometown is going to do if we have another 100-year flood.

And, meanwhile, international climate caucuses, they've been negotiating not just for five or ten years but since before I was born. That's why I found my way back to Vermont working with Toxic Actions Center, working side by side with community groups to clean up and prevent pollution.

We've worked to stop and nonrenewal frack gas pipelines from going under Lake Champlain, to promote renewable energy, and for carbon pollutions tax. It's time that we address climate change in a serious way to move Vermont toward energy independence and pricing carbon pollution is a necessary part to addressing climate change and meeting our state's energy goals.

A clear plan for putting a price on carbon pollution must be part of the Comprehensive Energy Plan. Thank you.

MR. ASA HOPKINS: Chris Williams and then Fran Putnam.

MR. CHRIS WILLIAMS: I'm going to submit my comments in writing, so you can move on to the next person.

MR. ASA HOPKINS: All right, so,

Fran Putnam and then Jason Kaiser.

MS. FRAN PUTNAM: My name is Fran Putnam, P-U-T-N-A-M. I'm from Weybridge. I'm here as a private citizen. I'm here as chair of the Weybridge Energy Committee, and as a grandparent and that third category is why I'm so concerned about climate change, that's the main thing that gets me up in the morning, that's what I work on in all of my spare time, and that's what brings me here tonight.

The goal of reducing our greenhouse gas omissions by 80 percent by 2050 is an ambitious goal, but I don't think we've gotten there. We're not getting there. We really haven't budge the meter whatsoever. So, I think we need to be a lot more aggressive. We need to do both the carrot and the stick, that may not be very comfortable for people, but if you keep your eye on the goal of slowing down climate change so that my grandchildren and your children and grandchildren and future generations have a future, we have to be more aggressive.

So, I'm here also to support the carbon pollution tax, because I think it offers

incentives and also offers some mandates. So, this is a way that we can have both economic stimulus, and, also, we can get people to adopt whatever they can to reduce the energy we use.

So, that's what I'm asking for, is the serious consideration for carbon pollution tax so that it isn't just goals we're talking about. Goals are important, and these goals are great, but we can just tear up a goal if you're not going to do anything about it. So, thank you very much.

MR. ASA HOPKINS: Jason Kaiser, then Justin Lindholm.

MR. JASON KAISER: Hi, my name is Jason Kaiser, K-A-I-S-E-R. I'm a metrologist from Danby who wants to stay living and working in Vermont. I love the challenging and ambitious goals of meeting 90 percent of the state's total energy needs for renewable sources by midcentury. One aspect, essential aspect of this goal, is to reduce greenhouse gas omissions which would increase the likelihood of avoidant climatic tipping points and moderating the intensification of current

climate impacts.

On this note I bring attention to Page 370, paragraph four, the last sentence which reads: "Capturing methane released by decomposing waste or manure and adding it to the pipeline system to be used in homes and businesses has substantial climate benefits because methane is a GHG, greenhouse gas, 20 times more powerful than carbon dioxide."

I observed two issues with the last part of the sentence.

(A discussion was held off the record.)

MR. JASON KAISER: Has substantial climate benefits because methane is a GHG 20 times more powerful than carbon dioxide. I observed two issues with the last part of the sentence. First, unless I misunderstand the intent of the sentence, it appears contradictory. Any greenhouse gas that is more powerful than carbon dioxide at trapping heat is a substantial climate disadvantage, and, therefore, does not provide substantial climate benefits.

Second, is the impetus behind including in

the CEP the fact that methane is a GHG 20 times more powerful than carbon dioxide. As the source of this factor is not cited, I believe it came from Intergovernmental Panel on Climate Change, IPCC, reports as the stated global warming potential, GWP, cumulative forcing over a period of 100 years.

The problem with a time horizon of 100 years as it relates to methane is, that 100 years is seven to ten times longer than the actual atmospheric lifetime of methane which the EPA and IPCC agree is around 10 to 14 -- 20 -- 10 to 14 years. And I'm going to submit the rest of my comments on-line because my time is cut short.

MR. ASA HOPKINS: All right. Justin Lindholm and then Paul Stone.

MR. JUSTIN LINDHOLM: Hi, I'm Justin Lindholm from Mendon, Vermont. I think you can hear me well. I speak loudly enough. I'm going to hit on one thing, and I'm going to do it very quickly. I've been involved in renewable energy siting for several years now, and one thing I am very disappointed in from our Vermont Department of Public Service and

Public Service Board and a lot of Vermonters is, they are cold and heartless about the poor people who have to suffer from wind turbine noise near these wind turbines.

We should be ashamed of ourselves. This seems to be a standard human trait down through history that we, to save something, to save the world; to save the state; to save the country always seem to pound on that poor little guy for the majority. We built a constitution that actually says you must be compensated, and these people need to be compensated or we're in big trouble, and we're going to be known in history as a horrendously cold and heartless state, this State of Vermont.

MR. ASA HOPKINS: Paul Stone and then Nancy Morlino.

MR. PAUL STONE: My name is Paul Stone. I'm from Orwell. My wife and I own 1,029-acre solar collector that is a farm. We grow turkeys. I'm addressing Chapter 5 on land use and citing. This chapter does not adequately address the use of agricultural land for solar installations since about 90

percent of the Vermont -- of Vermont will be off limits to solar due to forest, forestland, or wetlands or already developed parks and etcetera. The best agriculture land will be the only sites available and the most desirable sites for solar and this is wrong.

Good agricultural land are scarce and an irreplaceable source. It doesn't take -- make any sense to destroy our precious ag land resources for solar generation, especially when there are other ways to generate solar, generate renewable power. Ag lands are already solar collectors, growing food, and recycling carbon dioxide and of great economic importance to Vermont to provide jobs and create beautiful landscapes for our enjoyment and for the enjoyment -- and to attract travelers. It is not -- it will not be possible to farm in and around solar collectors; they are far too fragile, and it would be rather imprudent to graze cattle or farm with machinery around these collectors. My hope and recommendation is, that no agriculture soils in the State of Vermont will -- with statewide significance will be used

for solar sites. If there are areas on farms that are a lesser agricultural significance, then they can be used.

So, I'll stop at that point. Well, one, one thing. On Page 215, in the middle of the page, there is a very contradictory paragraph about what can or cannot be used for solar siting. Thank you.

MS. NANCY MORLINO: Nancy Morlino will provide her comments on-line.

MR. ASA HOPKINS: Okay. Don Richards and Keith Dewey is a question mark.

UNIDENTIFIED SPEAKER: He just left with his phone.

MR. ASA HOPKINS: With his phone, all right. We'll go to -- Bob Amelang would be the next one.

MR. DON RICHARDSON: Don Richardson. Privileged to be a private citizen in the town of Mount Holly. Also privileged to have done my first solar installation in 1976. Today, quite honestly, we're headed in a direction that we need to know more about. We as a citizenry need to understand better. I strongly, strongly urge

in whatever method is appropriate, Doctor, to advocate for education about alternative energy. Education, that is basic facts of what is and what is not.

Towards that end, on Monday evening in the town of Mount Holly we will commence a community discussion group about alternative energy towards that objective, and we'll see where that goes, but I'm also privileged to be a net metering customer of Green Mountain Power.

So, I've kind of put my words out there in the field. Thank you very much.

MR. ASA HOPKINS: Keith Dewey is next. You missed, you missed your name. And then Bob Amelang after Keith.

MR. KEITH DEWEY: I'll submit most of my comments in writing. I just wanted to make two major points. In 2010 and '11 Liz Miller was developing the last Vermont energy plan, which is a marked improvement over what had existed before, and this, again, is to be complimented for another step forward. One of my concerns is the 90-percent-by-2050 target. Where did that number come from? Is that a

realistic number in terms of what -- what would Mother Nature say about that in the context of where we are with climate issues right now?

If we do set our goals in reverse and actually look at that and set our goals in accordance to what's actually happening in terms of biodiversity loss and impacts on the climate right now, I think we need to actually multiply all of our factors and percentages and goals by a factor of three. I understand that's a tough goal for us all to try to meet, but if we want to stay in context with the reality of the problem that's actually happening, that's what we have to do.

The other point I wanted to make was, one of my sources of frustration in choices that we make in terms of energy and our types of selection of different types of energy is, we don't -- we've gotten into a nasty habit of not actually looking at the true societal cost of the different types of energies that we choose. The cost of a gallon of gasoline is not $3 at the pump. In terms of true societal costs, it is about $30 a gallon.

We need to start plugging in the reality of those kinds of figures into our life cycle analysis work that we do which completely changes the decisions we're making.

MR. ASA HOPKINS: Okay. Bob Amelang and then Glen Horgan.

MR. BOB AMELANG: Bob Amelang and my last name is A-M-E-L-A-N-G. I'm a resident of Rutland. I admire and applaud the noble goals we have here in Vermont, and I think we as a world have to change the way we obtain our energy, but I think that we need to look at the problem in a global standpoint and look at the fact that we are a very small state, and what we do is not going to have a big impact on climate change. And if the price of gasoline is truly $30 with a societal cost, it doesn't make sense to impose that cost here in Vermont if you can just go across the river to New Hampshire and buy gasoline for $2. We have to be -- we have to make these goals in the context of being in the United States and the world as a whole.

I have some comments in particular about net metering. I think that the issue about

net metering has not been fully explained to the Vermont people. It is a cross subsidy from the people that have net metering and those that don't; in other words, the non-participants pay for the other ones, and I realize a certain amount of this should be done, but we need to look at this in the context of: How long can we sustain this? How much of a subsidy are we going to provide from one class to another? And we can't continue to have net metering because somebody has to pay for the infrastructure, and if we all are net metered customers, nobody is going to be paying for the infrastructure which we still need to have to run electric. Thank you.

MR. ASA HOPKINS: Horgan and then Jim Georg. Glen Horgan? Jim Georg or Jim Georg, last name I'm not sure.

MR. JIM GEORG: Georg. I am Jim Georg, Georg without an E on the end. I'm not a real Vermonter; I moved here ten years ago, and I'm always surprised to see how energetic Vermont was on the renewable energy thing and saving the planet.

I noticed that there was incentive -- incentifies, is that how you say it? Through a way of paying the people who are putting the things in that did that, the wind and the solar, and it seemed that they got more for their electrical energy from the provider to us and that in our tax bill -- not our tax bill, our hidden tax bill went up or electric bill went up.

In any event, in those ten years I've watched a lot of things go on, and I found it interesting that this thing has been a real struggle. Siting is crazy. We've got people who say we have to have it and are very energetic and very, very interested and then we've got people who, with as much zeal as the ones who want it, don't want it. They don't want it by their grass; they don't want it in the woods, and I got 30 seconds. And I think what you got to do is, really do something about putting the energy where you need it and putting it in parking lots, in the big parking lots in the towns where they're going to use more electricity than anyplace else and might be able to do that by fixing -- 10 seconds --

by fixing, by fixing the grid.

MR. ASA HOPKINS: Spence Putnam and then Bobby Carnwath.

MR. SPENCER PUTNAM: Spencer Putnam, P-U-T-N-A-M. First of all, I applaud the goals of this plan of reducing greenhouse gas omissions by 75 percent and by getting 90 percent of our energy from renewables. These are important goals for us. My concern is, that so far our greenhouse gas omissions have remained flat. There has not been -- we are not making -- we're staying still. We are not making progress, and we're only 16 percent in renewables, so we've got a lot to do.

When I hear that we spend 2 billion dollars on fossil fuels, I see a business proposition and a business opportunity. When I was the -- in operations, ran operations at Vermont Teddy Bear Company, we worked hard to reduce the amount of energy we used to run our machines and to heat and cool the building and it saved us money. And, personally, my wife and I built a net-zero, solar-powered house, and we cut our own utility bill by 90 percent. We also drive an electric car that's now

powered by our roof, and we're saving costs on driving our car.

We need subsidies to help people make this kind of transition. We need to discourage what we don't like and encourage what we do want. In Vermont, the way to do that is to put a price on carbon. The proceeds from a carbon pollution tax can help fund weatherization and encourage more efficiency in transportation, that will save dollars for individuals; for businesses; and institutions. But, more importantly, the more of that 2 billion dollars that we can keep in state instead of sending it out of state to buy fossil fuels has money circulating in our economy and weatherization jobs cannot be outsourced to Asia. Please put a carbon pollution tax into the plan.

MR. ASA HOPKINS: Bobbie Carnwath and then Rod Munroe.

MS. BOBBIE CARNWATH: Bobbie Carnwath, C-A-R-N-W-A-T-H. I want to point out what I see as an inconsistency in the plan's statement concerning broad overall goals. The introduction notes that, quote,

"The 2011 CEP established a goal of meeting 90 percent of the state's energy needs through renewable resources by 2050," then goes on to say, it also proposed taking steps to virtually eliminate, eliminate our dependence on petroleum. And then the 2050 plan states on Page 336, "Natural gas suffers from the same environmental and economic concerns applicable to other fuels," that being the case and evidence is increasing indicating that that is the case, why wouldn't the 2015 -- 2050 goal now be broadened to propose steps to virtually eliminate our dependence on frack gas?

Among other things, that would mean we would be sending a lot less of our money out of state, or in the case of Vermont Gaz Metro, out of the country. If we are going to reach a goal of 90 percent renewable by 2050, we will have to be investing a lot of money in our state. The carbon pollution tax could be an effective way of keeping our money in and using our money in Vermont.

In the beginning it will cost us more at the pump and from our fuel dealer, but I agree

with Commissioner Recchia, as he pointed out at his introduction this evening, I quote Commissioner Recchia, "I don't think that we can afford the cheapest possible price of these things as we go forward."

MR. ASA HOPKINS: Rod Munroe and then Beth Thompson is a maybe.

MS. BETH THOMPSON: I'll say, yes.

MR. ASA HOPKINS: Okay. So, Rod Munroe and Beth Thompson.

MR. ROD MUNROE: My name is Rod Munroe, M-U-N-R-O-E, and, first of all, I want to applaud the work and the goals of getting to 90 percent renewables by the year 2050. I want to be blunt, I believe that any thought of a natural gas pipeline coming into the state should be trashed. I don't believe that it is a renewable fuel. It's not a transition to the goals that we have as a state in our renewable energy portfolio. So, I just want to, you know, say that it's a fracked force of energy from Canada, and we will be exporting those dollars to another country.

My second goal, my second thought is with the solar and, like you say, in fossil fuels,

it seems like that's the most carbon pollution we have in the state is through gasoline. And with all of the solar, the farmers that we have in the area, I always thought that I have partially like an electric vehicle. I like to see us having solar charge stations for our electrical vehicles in the Rutland area to help reduce that amount of, you know, carbon that we put in the air. Thank you.

MR. ASA HOPKINS: Beth Thompson and then George Gross.

MS. BETH THOMPSON: Beth Thompson, T-H-O-M-P-S-O-N, and I forgot my glasses, so I'm -- I, too, would like to applaud all of the work that has gone on here. It is formable and it's complex; it's lofty but it's extremely necessary and the time is running out. What I really -- I didn't read the whole -- 350 pages is what I had but I did read some of it, and one of the things I really liked was the statement that it was intended to encourage each and every citizen to do what they can to help all of Vermont achieve a transformative energy future, and I love that phrase and I hope we really do it.

I appreciate the emphasis on efficiency and conservation, but I didn't see anything in there -- and, again, I didn't read the whole thing -- about educating people about reducing their consumption, and I don't mean just by buttoning up houses. I mean by, let's teach ourselves to use less.

I also want to address the reducing greenhouse gas omissions and say that I did study up on the natural gas part of this, and I think that there are many specious suppositions in the natural gas section. We need to be paying attention to whether the omissions occur in places outside of Vermont, because it still contributes to what's in the atmosphere. And there is a lot of that happening at the extraction sites and along all of the transmission routes.

Other suppositions that seem wrong to me is, that it's cleaner than other fossil fuels when properly extracted and distributed. It's not done properly and that it's not as environmentally friendly but it is currently less expensive. The volatility of this fuel pricing structure has been proven, that's why

we see other states in New England paying more for electricity, because they are relying on natural gas. So, those are some of the things.

I think ultimately trying to wean ourselves, reach independence on fossil fuels is what we're after and that that would require a commitment to no new fossil fuel infrastructure in Vermont especially when compressed natural gas can supply needs and, therefore, can function as a more temporary transition and use of that fossil fuel. It's a fossil fuel and this is in direct contrast to Mr. Donahue. I think we can supply Rutland with CMG.

I'm very concerned about permitting and our state's giving of Certificates of Public Good which allow a corporation to seize Vermont citizens' land by eminent domain. This is wrong. It's just plain wrong for Vermont. We cannot let this happen anymore.

I'm also concerned about public and communities being involved in siting decisions, because I think there is a wrong way to do the right thing. There just needs

to be respectful dialogue, and this might necessitate skilled outside moderators for that purpose.

The other thing is, that we definitely need to incentivize our reduction and consumption, and I'm very interested in the potential of a carbon tax, and I'd also like to expand it to being kind of a global warming potential tax. Thanks.

MR. ASA HOPKINS: George Gross and then Barb Wilson.

MR. GEORGE GROSS: So, there is probably quite a few comments I could make but, unfortunately, it won't fit in the span of two minutes, so I will try to condense into the essentials. So, in the laws of physics; laws of climate science, they don't care what we say. They don't care about economics, they are going to keep on cruising. Every day we march towards this time where, if you read the science, there is this very real risk, what I call risk management issue, and we tip the scales in a way that is not easily predicted. Once it starts, it begins a feedback route. It's the nightmare scenario where, once it

starts, you cannot back it out. You, basically, have lost control of the climate. And there are a number of ways in which that can occur, and I won't get into the leads about the particulars of it.

It's a very real peril, and it's very real incentive for all of us to consider, that that transcends almost all of the other considerations that we might actually have. It is not brought up politically very often because, frankly, it's scary and, nonetheless, this is one of the main reasons why I look at the climate issues. It's an existential issue. It is one, if we do not do it well, our children will never forgive us.

And I will say that, you know, there are going to be, obviously, political barriers to doing the right thing. I happen to have a solar array in my backyard. I'm fully supportive of solar, but I'm also sensitive to the people that have property values and feel that they have to have a voice in how things are sited.

With respect to solar, if you actually look at the amount of solar that's being

petitioned for Vermont, I noticed the plan doesn't currently show the batch that are being generated by the regional planning commissions, but they should be a part of that document. And this should be amended to the document after those reports show up. Altogether, barely half of 1 percent of the land in Vermont would need to be used to power this state. That's a really small amount. And if we're careful about how we site it we can achieve that far sooner than 2050.

So, I urge everyone who is involved in the solar siting dialogue to work for the planning commissions and get in front of this process so that you can actually control the outcome to your satisfaction, thank you.

MR. ASA HOPKINS: Thank you. Barb Wilson and then Marlene Allen.

MS. BARB WILSON: Hi, I'm Barb Wilson, that's W-I-L-S-O-N. I'm just going to be brief here tonight. I applaud what others have said before me. One of the things I think that the plan needs to do is -- when you talk about reducing our carbon footprint, but we look at us as just Vermont, we don't look

at what our choices are doing like using a product like natural gas in other parts of the world. So, we are no longer an island. We have to worry about the climate and the whole world. It's too late, right? What Vermont does, sure, we can just count reducing our carbon tax and it's like, oh, the methane from the natural frack gas that we're using is somewhere else, it's still going to affect us. So, we have to -- even when we look at carbon tax right now it doesn't consider anything outside our borders.

So, the carbon tax, as far as I'm concerned, needs to address that as well because that's equally important. It's not going to matter, you know, climate change isn't going to matter. And I applaud the plan saying we need a healthy, prosperous forest and farms but I'm seeing a decline. I do farming and they're declining. So, how are we going to achieve that? You know, we got to get real. And that's reducing carbon not only in Vermont but across the world. And we have to participate and be responsible for our choices.

MS. MARLENE ALLEN: I'm next and I will submit on-line.

MR. ASA HOPKINS: Okay. In which case the final name I have here is Francis Wyatt.

MR. FRANCIS WYATT: I'm Francis W-Y-A-T-T, and I've been doing energy economic analysis in Vermont and elsewhere since '92, and I think it's, you know, becoming increasingly clear that there is a cost to the carbon pollution we put in the atmosphere, and we have to account for that in some way.

The Public Service Board has recognized it, and in their guidelines they set forth for doing economic analysis they put a price on carbon, but, unfortunately, when the consumers in Vermont are making their energy choices they are not paying for that cost of the carbon that goes into society and the cost that is, you know, given to not just Vermont but on the whole globe.

So, I think there should be more mention of a carbon tax as a way to bring about the goals that are being set forth in the plan.

MR. ASA HOPKINS: Thank you. As

we've gone around the state, you know, we've heard -- you know, probably at least 75 or so folks have shared their comments and they are, you know, they are the most thoughtful; passionate; caring set of comments, and will be immensely useful to us. Everything from, you know, look-at-this-sentence-on-this-page comment to the big high-level comments are just immensely useful, and we thank you very, very much for sharing them with us.

We look forward to the rest of your comments submitted on-line at energyplan.vt.gov by the 9th of November, and we hope that you will engage in the process around the release of the plan and about making the recommendations in it become a reality over the course of the coming years. So, thank you again very much and we'll see you around.

(HEARING WAS ADJOURNED AT 8:04 P.M.)

C E R T I F I C A T E.

I, Lisa M. Hindes-Moody, Court Reporter and Notary Public, do hereby certify that the foregoing pages, numbered 1 through 43, inclusive, are a true and accurate transcription of my stenographic notes of the Public Hearing taken before me on October 29, 2015.

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Commission Expires: 2/10/19