State of Vermont
Department of Public Service

Comprehensive Energy Plan
Transportation and Land Use
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COMMISSIONER MILLER: Good morning. I really appreciate all of you being here. This is great. My name's Liz Miller. I'm the Commissioner of the Department of Public Service, and this is our second stakeholder meeting for the energy planning process.

Today we're going to focus on land use and energy -- I'm sorry, land use and transportation in the energy planning process. This is just, it sounds like a pun, but this whole process has really re-energized the Department, and I just -- it's because frankly we have had so much input already from folks in the room and other organizations as well as other agencies and departments in state government. It's really been a positive process. It's been a very interesting process and these meetings are key to that. So, again, I just thank you all for taking the time to be here and to help us with this.

Before we get started let me just point out, and if I miss somebody please let me know, the other folks in the room from the state government who have been supportive and are going to help us out today. Chris Recchia Capitol Court Reporters, Inc. (800/802-863-6067)
is here. He's the Deputy Secretary of ANR up here in the front, and, Chris, I know you have some other folks from the Department. I think I saw Brian Woods. Brian and Dick Valentinette are here, and there's Brian and Dick. Thank you for coming, and Justin Johnson from DEC, if not here now, will probably be here later. So thanks to ANR for coming and helping out so much in this process.

Transportation is here as well. Sue Minter, the Deputy Secretary of Transportation. Thank you for coming, Sue, and I know Gina Campoli is here as well. There's Gina, and who else do we have?

DEPUTY SECRETARY MINTER: We have Chris Cole and Costa Pappis.

COMMISSIONER MILLER: Great. Thanks for coming. Really appreciate it. The Department -- I'm sorry. Agency of Agriculture has also been key, and Chuck Ross is planning to come this morning and hopefully he'll have a chance to give us a few of his thoughts and perspective on energy planning from Agriculture's point of view. Is anyone else
here from Ag right now? Okay. I'm having a little difficulty with the glare, so if I miss you please let me know.

Noelle MacKay's here from Agency of Commerce and Community Development. Thank you. So Noelle is going to present for us later on land use issues. We've also been working closely with Human Services, particularly Jeff Wilcox. I don't think I saw him come in the door yet this morning, and Buildings and General Services. I know Deb Baslow is here. There's Deb. Hi, Deb. Thank you for coming.

Have I missed anyone from state government? No. Good. It's really exciting to have so many of the partners in the room for this topic, and also I just want to recognize Kelly Lucci and Jeff Monger from Senator Sanders' office. Thanks so much for coming. Senator Sanders obviously has been such a key player at the federal level. His solar roofs legislation, for example, and a number of other things he's championed in the Energy Environment Committee has been key, and his office has been incredibly helpful to us.
and I really appreciate you coming today.

So with that let me just tell you what the framework is for the process that we're going through. I have a number of folks from my Department here as well and I'll just quickly point them out, not necessarily in the order above here.

Dave Lamont, our retired planning director, has the flu and couldn't be here today, and it's not the ski flu it's the real flu, but Kelly Launder, our assistant planning director, is here at the door. Andy Perchlik, our clean energy fund director, can't be here this morning, but has been a key person involved in the planning process. TJ Poor, one of our energy efficiency specialists who's testifying at the Legislature today. Brian from energy efficiency is here, Brian Cotterill, over by the door. Ed Delhagen, he's our facilitator for the day, upfront and has been just a key person in getting these meetings together. So thank you, Ed.

Let's see. Karin McNeill is over by the window here with George Nagle as well, and you'll meet some of these folks later as we go.
through the small group process because the Department will be sitting in and taking notes and making sure to get everybody's perspective.

I've already gone through agencies and department partners. So format for the meeting. We've going to have a brief presentation by our staff, as well as by other agencies and departments, to set the framework.

We're then going to have some breakout groups so that we can specifically get your perspectives on the issues at hand, and then come back and have a facilitated large group discussion. So we have a chance to go talk on a more detailed level in the small group and then make sure we all have a chance in a larger format, and really we're trying in this process to set the path for Vermont's energy future.

Today is just the beginning. We have had the kickoff meetings, let's see, about a week and a half ago on energy efficiency and renewable energy issues. Today on transportation and land use. We're developing
a web based opportunity for comment. Right now at the Department's web site you can submit by e-mail any comments that you have. We're collecting all of those. We're also recording, transcribing comments that we receive today, and we're aiming toward a public hearing schedule later in the summer of 2011 when the new draft Comprehensive Energy Plan is available.

Our goal is October 15th. That's the deadline the Governor has set to have a new Comprehensive Energy Plan on his desk and so we're working hard toward that goal.

Just quickly the statutory framework for the plan. It is required to be a comprehensive analysis and a projection regarding the use, cost, supply, and environmental effects of all forms of energy resources within Vermont. It needs to include recommendations for state implementation actions, regulations, legislation, as well as suggestions for public and private action that may carry out the plan.

We are going to, as a part of this process, also update the Department's --
what's known as the electric plan. It's separate from the energy plan. It's focused solely on the electric sector, and it makes sense to us that the energy plan and the electric plan be updated in harmony with one another. So we'll undertake that process at the same time.

We create a Comprehensive Energy Plan so that we can assure to the greatest extent possible that Vermont can meet its energy needs in a manner that's adequate, reliable, secure, and sustainable, that assures affordability, and encourages economic vitality in the state through the efficient use of energy resources, cost effective demandside management, all in a way that's environmentally sound. So that's the statutory mandate and purpose for the Comprehensive Energy Plan that we're following.

We create the Comprehensive Energy Plan by looking at all of the state laws presently touching upon the subject and taking those into account in the planning process. So, for example, the greenhouse gas reduction goals
that the Legislature has passed, the SPEED goals in the standard offer program, those are laws that presently exist that the planning document must take into account.

There's a few things the Comprehensive Energy Plan does not do. First of all, it doesn't prescribe outcomes on specific pending projects. There is a PSB process for pending projects and the Department has a role in that process as do any other parties who come into the Public Service Board process.

The planning document is meant to be future looking. It's to plan for the coming 20 years, and in that regard does not take a position on specific pending projects separate from the PSB process, and in that regard Yankee is a question that I get a lot so I like to address it right upfront.

The Comprehensive Energy Plan itself is not a place to analyze relicensing Yankee. Instead, it's a document to look toward Vermont's future. Obviously there is a state process for continued operation of Yankee or not. Under the state law process Yankee has not received authority to operate past March.
2012, and the plan will plan for a
post-Vermont Yankee future because the
Governor has been clear that we have not had
that plan in place and need to do so.

Overarching goals to keep in mind.
First of all, all energy sectors. That's why
we're here today talking about transportation
and land use. We need to address those
sectors in order to strive toward a lower
greenhouse gas footprint toward our state law
targets, and we need to do it in a way that
keeps Vermont regionally competitive. So when
thinking of all of the aspects of our plans
these are the three things that we focus on.

Let me just talk briefly about the
stakeholder draft which we have up on our web
site. We have some copies on our table near
the entrance. The Department, which is
charged with creating the Comprehensive Energy
Plan, hasn't adopted a plan since 1998. So
it's been a while. We did adopt an electric
plan in 2005 and, as I said, we'll be updating
that.

The Department did go through a process
to produce a new draft in the 2008 time period
and that draft was put out for public comment. There's a lot of good detail in that draft, and when I came into the Department and we started talking about this process it was my judgment that the 2008 plan should be a starting point for engagement. That it shouldn't just be put in a drawer and ignored. That instead we should look at it and have comments made on it and suggestions on how we go forward from that point.

Specifically, the land use section in the Comprehensive Energy Plan draft from 2008 has actually been significantly updated since the time the 2008 draft was made available to the public, and there are other portions of the draft that staff at the Department did update after the 2008 time period. So, again, I felt like it was important work. It was a lot of effort, and it was important to put that out there as a starting point for this process.

There's quite a bit of other state activity that we need to take into account moving forward. Obviously I've already mentioned the legislative mandates. There's a
good deal of action on the climate front as you know, cabinet level action, as well as interagency committees such as Climate Neutral Working Group, and again close partnership with ANR is key in our view.

The State Agency Energy Plan, which Department of Buildings and General Services puts together with respect to state facility energy planning, is also key to this process as well as transportation planning, agriculture initiatives, and green energy jobs initiatives. So the state is looking at all of those together in creating this plan because, frankly, as a Comprehensive Energy Plan we have to do that.

We're also looking to what has happened outside of state government because there's been a lot of work done by many of the groups that all of you represent, and we have no interest frankly in reinventing the wheel. We want to use those wheels to drive Vermont forward. So we are collecting and reviewing the work that many folks in this room and others have done to be able to utilize and recognize that expertise, and that includes --
the list is long frankly, but town energy committee reports, various transportation groups around the state, as well as environmental and land use groups. So those reports will be taken into account as we move forward.

Let me just finish with a couple minutes here just describing the energy landscape for you as it currently exists. This is a pie chart of Vermont's energy usage, and as you can see it's essentially a third, a third, a third; transportation, residential usage, and commercial and industrial, and I think the important thing to note here is the swing. Residential and commercial and industrial rely heavily upon electricity for their energy usage, whereas, transportation unsurprisingly relies heavily upon petroleum, and the sector of petroleum in residential is also significant. It's about 50 percent, and when you include natural gas it's trending even a little bit higher than that.

So when we think about the energy picture in Vermont it's critical that we include transportation because it is one-third
of our energy usage. It's also critical that we think about land use because our pattern of home and commercial building usage really drives our energy picture.

Consumption has gone up over the years, and we have had a recent dip both because efficiency measures have been successful as well as the economy, but even with efficiency measures and the success of our efficiency programs over time we still have seen a total energy sector increase, and this chart shows you where those increases have occurred. Transportation is a good one to focus on. It's the second bar there. Am I reading that correctly? Yes. It's the second bar there, and this is just showing that over time transportation usage has grown to be a larger chunk of our total energy usage in the state, and you can see electricity likewise has grown over time.

With that, unfortunately, our greenhouse gas emissions have also continued to grow, although at a slower pace because of some of the measures we have already put into place, and this chart shows where we might expect
them to continue to go in the absence of other actions, and this is what they call the high emission scenario. This is from -- well it's most recently been in the Climate Neutral Working Group Report, but it's appeared in the State Agency Climate Report.

So, again, there's different sectors here. For purposes of today transportation gasoline use is the big green bar in the middle, and it's projected to continue to be a significant contributor to greenhouse gasses going forward, although you can see it does narrow a little bit based upon at the time this was created assumptions on fuel efficiency. If other assumptions are used for fuel efficiency or for a different mix of our transportation, we could get that bar smaller, and in the planning process that will be part of the goal in order to get this entire chart lower to make our greenhouse gas emissions in line with the state mandates.

So finally, as I said, about two-thirds of the total statewide energy usage is not electricity but is instead related to other aspects of transportation and land use, and
really the integration between the two is important and we're going to talk about that a lot today, but I just want to set it up this way. You can't make transportation decisions fully successful unless you're doing them at the same time as you make land use decisions to support those transportation choices, and really the converse is true as well. You could put in a great public transportation system, for example, but if you don't have strategies to have people live and work in places where that public transportation system would be most efficient, then you haven't done everything you can to reduce energy usage in the state. So that's why in our view it's important to take these two topics together and why we're excited to have all of you here today.

Thank you very much for coming. Let me turn it over to Ed Delhagen now. Thanks, Ed.

MR. DELHAGEN: Thank you very much, Liz, and thanks so much for all of you for coming out today. This is our second iteration on the stakeholder meetings and we're very excited about being here. I'd like to thank
all of the partners from the agencies who have come to participate and work with us on this process.


AUDIENCE: What kind of car?

MR. DELHAGEN: Okay. Yeah. How many people here represent either regional planning commissions or metropolitan planning organizations? Kind of get a sense of who is in the room.

How many people here work in the private sector with businesses or manufacturing or transportation in some way? Okay. A couple. How many people here work with non-profits or community groups? And how many people here are with some level of government; local, regional? Okay. So we have a nice balance here. That's nice to see.

During our first set of meetings we were trying to break out into small groups that had
a nice diversity that allowed people to hear one another, and we got many, many great comments during the first breakout session and we're looking forward to that today.

I would like to quickly walk through a couple points for today's meeting and we've already talked about these objectives for today, and this is our agenda. Everyone should have a copy of it by now. We're going to try to segue the morning conversation into the afternoon because, as Commissioner Miller has said, the conversation of land use and transportation are integrally connected together.

That said, we are going to focus the morning conversation on transportation aspects and the energy parts related to that, and then try to bridge that conversation into the afternoon for folks who plan to stay throughout the whole day. We may wind up with some people coming in fresh in the afternoon, and Commissioner Miller will do a little bit of a reset around 1 o'clock to help bring the new people into the conversation, and then we will commence with some other conversations.
about the land use part.

As you see on the agenda both parts have a small group breakout, and we have a relatively small group today so hopefully by now everyone has had a chance to sign up for one of our three breakout groups. If you haven't done so, you don't need to do. So when we break in a couple minutes you will have a chance to select a group. We have breakout groups here on the side. We have not structured any normal break time into the agenda, so if you need to use the facilities they are located off on to the side of the building over here, and please feel free to do so during the travel time.

I would also like to suggest some working groups for today to help us stay focused and provide as much opportunity as possible for you to share your comments. We do have many people here and many different points of view and perspectives, and we would like to hear as much of that as we can.

The first one is try to keep focused on the conversation today around transportation and land use. That said, we did -- we do
recognize that some people may not have had a
chance to attend previous meetings and might
have comments that relate to some other part
of the plan that we have not planned to talk
about today. Please feel free, we'll welcome
those comments as well, but to the extent we
can focus on land use and transportation that
would be very helpful, and we will have some
mechanisms, as Commissioner Miller has said,
for additional feedback and we'll talk about
some of those in a little bit.

The second one is try to keep comments
brief and either in large group or small group
try to keep your comments focused to about one
or two minutes if possible, and that should
leave room for everybody to have their
opportunity to speak.

And one person at a time and that's
largely important for our court reporter who
is transcribing our conversation today so that
she can capture what we're saying. Everyone
will have an opportunity to use the microphone
and we'll ask you to use it and speak clearly
so that we can capture your comments as
accurately as possible.
As we are we started a little bit late. I will try to catch up during the course of the morning. We might wind up going about 10 minutes over to make sure we have enough room to hear what you have to say. We'll plan to end the morning session at some point in the ball park of 11:30 to 11:45, and then we'll take a lunch break and plan to come back around 1 o'clock. So how does that sound to help us move through the conversation? Is that something we can all work with? Okay. All right. Great.

So with that I would like to turn the conversation over to Deputy Secretary Sue Minter who is going to share some reflections on transportation with us.

DEPUTY SECRETARY MINTER: Most people who know me know, I'm not a technology whiz, so I just push that?

So thank you all for being here and I'm really excited as a land use planner now involved in transportation policy and strategic development to be seeing transportation as part of the discussion around our energy future. I think we have
done so much in the policy realm in Vermont. We really have been national leaders in the electric sector and now we need to be a leader in the transportation sector, and it's great to have a strong participation component into our energy plan. So thanks.

So to that end I just want to begin by saying we have some heavy lifting to do. We will be looking a little bit here -- I'm just really been asked to begin some conversation by looking at some overall trends and seeing the kind of energy we use primarily by car and thinking about how we might be able to be more efficient.

I want to thank Costa Pappis and Gina Campoli from my staff for helping to develop this presentation. I also want to recognize that most of these slides and the data here are actually from a report by our Transportation Research Center at the University of Vermont. Is Karen Glitman here? Karen is here. Thank you. She's probably the one who got us thinking about these data, and I'm glad we have her report to really share with you.
So the key point here is that in Vermont the transportation sector is the largest energy user followed closely by residential. This is slightly different from the Public Service Department slide which combined commercial and industrial, but it's also worth noting because this looks also at the national trends; that transportation energy use in Vermont accounts for a substantially higher share than the national average, probably because the rural nature of our state and the distances we have for travel especially to work.

You know I think we have, as I said, done a lot to address energy efficiency and we really see a compelling reason to bring transportation into the discussion, and, of course, when relating this to greenhouse gasses and climate change we see again that the transportation sector contributes the largest share of Vermont's greenhouse gas emissions. We have here 44 percent. That's from 2007. I believe our current data show that as higher. Maybe we will be learning more about carbon from Chris Recchia so he
might be able to get that, but clearly it's about the combustion of transportation fuels, gas and diesel, that contribute more to the greenhouse gas emissions than any other source.

So the question is how do we analyze the transportation sector and the part of the energy consumption and greenhouse gas puzzle. So the policy framework in which we are operating talks about a four-legged stool. We think about the vehicle miles traveled. We think about our fleet and the efficiency of that fleet, we have some data on both of these, and we think about our fuels. I believe Chuck Ross will be talking more about the potential for biofuels.

The fourth leg here is more related to national thinking. It looks at how do we reduce congestion through different strategies. That is less relevant here in Vermont frankly, but we also do think about that in a national policy context.

So what do we know about VMT, vehicle miles traveled? Well -- and actually this is looking at our Vermont spending because I know
our plan has to look at affordability.
Vermonters have been spending a lot and a lot
-- an increasing amount on their
transportation. An increase between 2005 to
2008 over half a million dollars spent on
transportation, but we also see that declining
more recently.

Guess what? It's because we're driving
to work in our single occupant vehicles. 94 percent of our mode of choice right now going
to work in Vermont is in our car usually
alone, and look at those different modes and
how they contribute differently. This slide
demonstrates the energy use by mode. Not
surprisingly the highest energy user is the
single occupant vehicle SUV. The SUV-SUV way
out there, but it's really worth noting that
we can do so much just by carpooling. If you
look at the difference between the single one
car per -- one passenger per car to two
passengers per car, you can see that we can
reduce energy use almost by half by adding a
person, and our transit vehicles are ever so
important, but unless they are full we need to
fill them up for them to really be the
efficient mode of choice.

So VMT. We see vehicle miles traveled.
The slide to your left really looks at the longer period. We have had a very steady and rather dramatic increase in vehicle miles traveled in Vermont since the 70's. Looking more carefully at more recent trends, however, it is interesting to note that since 2006 that has declined somewhat and steadied off, and there are some predictions that it will go up, but we point out here the relation, the connection between fuel prices and followed by the recession. That's how we think is affecting this behavior unless, of course, it is the bad condition of our roads. Maybe that's another strategy we can consider. We could just leave the potholes and it would become too unaffordable to drive.

So we see the trends in vehicle miles traveled, but what about our fleets. Well this slide really shows us -- gives us some hope. Vermonters are buying hybrids and more efficient vehicles. Significant increase. Good news. Not such great news on the electric vehicle front I will note. It raises
a policy question. We don't have the infrastructure for people to drive electric vehicles very far yet in Vermont. Maybe that's something we should invest in. Chicken and egg thing, which one do we do first, but still the majority of Vermonters are still buying the least energy efficient cars on the market. We made progress in some forms, but overall we still have a long way to go.

So what are we doing in here in VTrans land? I want to recognize Chris Cole who has recently come on board as the director of a newly restructured division. It's called Policy, Planning, and Intermodal Development. One of the first things this Administration has done is trying to start to actually, as a matter of policy and direction, look across the modes, and we are so thrilled to have the successful director of CCTA to come lead that vision forward.

One of the things I think has great opportunity is Go Vermont. If you haven't checked it out, I encourage you to do so. This is how I think we have in this rural state the biggest chance to make an impact on
VMT and it's by carpooling. This is an online resource that is up and running to help support ride sharing, ride matching, and van pooling, and it gives you all the information about the different resources you could go to, but it also links people up, and I'm not going to run it, but you see that little -- when you go onto YouTube sometimes you're going to see an ad, Go Vermont ad, on there about how great it is to carpool, and what I think is exciting about this is a commuter calculator. I only carpooled one day, and once you register you can input how you're getting to work, and it will feedback your benefits.

So one day I realized that just by carpooling once in a week I had saved 8 bucks, and I forget the -- but it looks at your greenhouse gas emission reduction as well, and this is a place that we put a little new investment in. I want to mention, especially to the community energy committees we see, the folks who are really mobilizing at the community grassroots level as the key to success, how are we going to energize new people into this commuting world and matching
people up. So we are going to have a challenge grant opportunity for those working with the regional planning commissions to see how we can grow that opportunity.

Buses. We have actually invested significant resources into public transit in Vermont. I think we're one of the leaders of the rural states in this country. We should be proud of that. It costs a lot of money and our system really is maturing. I think we are at a new phase of growth and strategic thinking about where we go from here, but look what we've achieved: Real ridership improvements over that time, over a million trips by bus in 2009, a little less since then, but we put it out there and people are riding it.

We also have park and ride lots, 27 around the state. That's over a thousand spaces and they are generally quite full. In fact, it's not a good story, on the one hand, because we need to do better to making more opportunities, but a quarter of the lots are exceeding their capacity. Anyone trying to ride the link from Richmond knows a lot of
people cannot find places to stop. So linking this -- these park and ride lots better with our public transit system and our carpooling opportunities is key to our future of changing that modal split.

We've also focused in this Administration on rail. Big priority of Governor Shumlin is to return the Vermonter to Quebec, to Montreal. We know this is going to really help reduce our subsidy -- increase ridership, reduce our subsidy, and grow rail in this state. Inner city passenger rail. We also just this week submitted a significant application. Costa Pappis has worked extremely hard. We feel like we are well positioned, we hope we are, to gain from the State of Florida's lack of interest in investing in rail. We want it. We had the number two person in the FRA, Federal Railroad Administrator, here in Vermont, had a great connection with her. We hope that gets us where we want to go, which is an investment of 80 million dollars on the western side of the state so we can extend the Ethan Allen from New York City to Rutland and up to Burlington
and beyond.

So it is a policy challenge. I cannot stand here without telling you that we have 30 percent of our bridges currently are structurally deficient. It is an important asset that we need to maintain and we are behind 322 bridges, and I'll tell you just one bridge in Richmond is under construction. It's going to be a two-year process to rebuild that historic bridge. 13 million dollars for one bridge of 322.

We also have 28 percent of our roads in very poor condition. That's the worst of four categories. If you put two categories together, poor and very poor, in some parts of the Northeast Kingdom 70 percent of the roads are in poor or very poor condition. So this is huge, and all of these efforts that we're thinking about to make our sector more energy efficient right now, our revenue base is derived from the gas tax, so we depend on those VMTs to rise. That's what we're depending on.

So this is a conundrum that we have to be thinking about in this discussion overall,
and I just want to leave by saying I think we are at a fork in the road. I see this is really a transformational time here in Vermont, across the country, and even across the globe as we face increasing energy insecurity, economic decline, and global restructuring, and of course the pending climate crisis, and I am so happy that this Administration and all of you are focused on meeting that challenge.

For VTrans I think it's about trying to turn -- point the ship in a new direction. We know that transportation fuels our economy. How and where we invest our transportation resources will affect our future growth.

We know that for the last 50 years our transportation policy and investment strategy has been about accommodating the vehicle, the single occupant vehicle primarily, and we need to change that. We need to think about the form of our transportation investment from sidewalks to transit and how that affects our energy efficiency, our community vitality, and even our public health.

So I'm so pleased that we're all in this
together and sharing new ideas, bringing new momentum at this moment of change because it is so important, and each and every one of us really is a part of making that new future.

I'll just end with a phrase coined by Alice Walker; *we are the leaders we've been waiting for.* Thank you.

MR. DELHAGEN: Thank you, Deputy Commissioner. I noticed that Secretary Ross has entered the room. Chuck, are you here? Would you like to share a couple of brief comments with us, Chuck?

SECRETARY ROSS: Sure.

MR. DELHAGEN: Thank you very much.

SECRETARY ROSS: Thank you, Ed. That was quite an introduction. So Ed just whispered to keep it brief so I'll try to do that, but I wanted to thank Commissioner Miller for including me in the introductory part of the program as the Secretary of Agriculture and particularly on this date when we're talking about energy, land use, and transportation.

And what's interesting for me is I cut my teeth in public policy in land use. I
studied it in college and graduate school, and
my first jobs so to speak in public policy
were in the land use planning or the Planning
Commission in Hinesburg, the Chittenden County
Regional Planning Commission, and so
transportation and land use were all a big
part of it. Interestingly, energy and
agriculture back in those days was not so much
a part of it. So it's interesting to be able
to be here and talk about those things.

So I'm here because I want you to
understand I think agriculture is actually an
enormous player in this conversation on
energy, transportation, and land use. You
know it is often the thing that fills the
spaces between where we live, work, and go.
It's -- that space is used and oftentimes it's
used by agriculture, and we are in the
agriculture world harvesting energy every
single day that ends up on your plate in one
form or another. It's the energy that
agriculture harvests everyday that they put on
your plate. We're large and steady consumers
of it in all forms from electricity to liquid
petroleum products to gas and things like
fertilizer, and we're increasingly large
producers of it, and what's really interesting
is we're increasingly large producers of
renewable energy.

And if you go to the gas pump, as you
probably all did today or will tomorrow,
you're going to be consuming an agriculture
energy product and that's ethanol. That's in
our gas every single day. Now whether that's
the best way to raise an energy product we'll
leave that for another day, but with the new
technologies around selling cellulosic ethanol
production that could be changing from being a
questionable fuel source to being a good fuel
source, and in that aspect the ethanol and the
changing technologies and the increasing
presence in agriculture and energy is the
reason why we have an energy section in the
farm bill. One of the biggest appropriators,
one of the biggest policy generators in the
United States government is the farm bill and
that is coming up in two years.

So whether -- I don't know in Vermont
whether, you know, or actually nationally
whether it's producing corn, or if you have
been to the midwest driving by miles of corn
followed by miles and miles of windmills,
agriculture is a huge, huge player on energy,
and while we're not going to compete with the
miles of corn and the miles of windmills in
Vermont, it's clear to me that agriculture
does shape our land use here in Vermont and
our transportation uses here in Vermont like
it does in the midwest.

Twenty percent of our land base in
Vermont is engaged in some form of
agriculture, twenty percent, and I know
somebody from Agency of Natural Resources is
going to be here. Our partners in one part of
energy is on the biomass side. There he is.
Wave your hand, be seen, and our friends in
forestry are occupiers of a large part of
that, and on the agricultural side. Just so
you know, you know, we're out there cutting
our grass which is one of the best solar
collectors ever made. Surprise, surprise
nature that did it.

That agriculture sector is about 55,000
people in the State of Vermont in terms of
connected jobs, close to three billion
dollars. Not insignificant in the Vermont economy.

So -- and then I want you to think about so when you're in your little downtown or you're in your little village in the State of Vermont what's next to you? What do you actually typically engage once you get past the last store, the last house on the edge of the village is you typically are engaging in either forestry or agriculture. That's the land use. We are part of your community.

In my town we have a farm in the town. I mean like in the village right next to the store. It is a part of our landscape, and the location of those farms, the vitality, the viability of those farms affects our land use patterns, and their proximity to our communities does make a difference, and you need only look to Middlebury to understand the connection between agriculture, energy, and our communities where they are looking -- there's a proposal to look at collecting methane gas from 3500 cows, compressing it, sending it to Middlebury College, and let them displace close to a million gallons of number
six diesel. That is all about land use. It's all about energy. It's all about your community.

And let me also suggest there's another thing why it's important. The connection, the best land conservation practice known to man in Vermont is a good agricultural business or a good forestry business because they are people employed on the land and want to keep employed on the land and that means they don't produce houses, they don't produce roads, they produce product and economy.

So now let me tick off a few things because there's a lot of stuff that we need to think about. Ed is probably coming to tell me to quiet down. No. All right. Give me a minute.

I'm just going to tick off a few things that are connected. Biodigesters. Vermont is a leader in biodigesters in the country. Why is that good? Because there's base load power on the one hand and they knock off greenhouse gas on the other. The worst CO2 is one thing. Methane is twenty times worse.

So we also have an evolution on grass to
energy in our report to Commissioner Miller. I spoke to somebody yesterday whose got 14 head grass to energy, something that he's been interested in for years, doing successfully in Pennsylvania. We want to do it in Vermont. They are a Vermont people -- Vermont people figuring that out.

And cellulosic ethanol actually gets to be viable economically. You know, bar the door. There's all kinds of stuff we could do in Vermont to raise product on our agricultural lands to do cellulosic ethanol.

So I just want you to leave -- and I'm close to finishing here, but I want you to leave my remarks understanding and appreciating the subtlety sometimes, and I would suggest it's not subtle, the role of agriculture in our energy profile and our land use and our connections to communities. We've got the space. We've got the know how. We're engaged in it. We consume it. We produce it, and I think we're smart, and I would advise you to think about this. I think if we're smart we can figure out how to increase and leverage the role of agriculture with respect
to energy, land use, and transportation to help Vermont stay Vermont. Thank you.

MR. DELHAGEN: Thank you very much, Secretary Ross. That was really great comments.

I would like to briefly introduce Chris Recchia who's the Deputy Secretary from the Agency of Natural Resources who will share some reflections on carbon energy.

DEPUTY SECRETARY RECCHIA: So hi everybody. This is going to be real quick, and I'm actually not going to spend a lot of time on carbon.

Just what I really want to emphasize is that the Agency of Natural Resources is delighted to participate in this process with the very forthcoming and credible and visionary Department of Public Service. Now we don't usually see all those words together. Appreciate working with Liz and we're anxious to do that, and also, you know, following up on what Chuck said, this relates to many different agencies throughout our government, but we are coordinating, and the main message I want to get to you is that we're engaged.
We're going to make this a comprehensive energy and climate plan. We're going to build in the emissions component of the climate component to this energy plan, and we're all going to work together and produce something that I don't think Vermont has seen in a long time.

So what I did just want to touch on is to let you know a lot of work has been done on climate somewhat independent of energy, but I am just going to offer that if we are successful at improving our renewable energy portfolio, our energy security, our economics, self sufficiency in Vermont with bioenergy as well as renewables that we have available, we will be successful in the climate picture. That will be one and the same goals.

We have a long way to go. We're not really getting where we need to get to. I'm going to just skip over this slide and say this is all in the climate report that was cited before, but in short, you know, we're seeing a dip in the recessionary thing and also through efficiency. I don't want to downplay the amount of efficiency in that
curve going down, but the reality is we're not near our two goals that are in the statute, and I'm not sure those goals are adequate at this point any more.

So 2012 we're supposed to be down in the seven million six point something million tons. The previous slide did that. 6.08 million tons of carbon equivalent, we're not there, and in 2028 better than a 50 percent reduction from where we are now. So we have our work cut out for us, and the segments are the same as what was discussed before, but there has been a lot going on. There have been at least three Executive Orders that have been in place in the last 10 years, 9 years, and a lot of work has been done on those things, and we are -- also have some statutory goals that I just referred to, as well as groups working on various efforts to do transition among agencies that occurred in 2008, but we're really building on that now.

We had to coordinate multiple efforts; the Vermont Climate Collaborative, the 25 x '25 which has been focused primarily on agriculture, and the Climate Neutral Working
Group. We need to integrate -- as I mentioned just a minute ago, we're going to integrate the CO2 emissions component into the analysis iteratively of this climate of the energy plan so that it can provide climate goals as well, and then finally Secretary Markowitz will be heading up an energy climate cabinet level group covering all the agencies that we're dealing with and more to address both statewide policy related to climate and also the state behavior itself as a state government in terms of climate and that will be being kicked off shortly.

So I just wanted to say how glad I am to be here. We have staff here that have been working on this for years that are also very glad to be engaged, and we look forward to working with you and hearing from you about your ideas.

MR. DELHAGEN: Okay. Thank you, Deputy Secretary. We have had several really interesting presentations this morning that have helped set the context for this conversation about transportation and land use, and again we are going to be focusing on
some of the land use questions, and if they come up this morning we'll be glad to engage them. We will be diving in on that later on this afternoon, and we'll have some additional presentation on some of the land use questions by Commissioner MacKay in the afternoon session, but for right now we are going to segue into our small group breakout sessions, and you'll notice that we have a set of questions that we've teed up for everybody and we've broken into three different sets of groups.

We have a group that's going to be focused on efficient transportation modes, biofuels, and transit, and in a moment I'll ask Karin McNeill to help us segue into those groups down below, but this is an opportunity for us to -- as a Department to hear your thoughts and reflections based on some of the context that we shared with the agency leaders earlier.

We have a couple of questions here which I'll go through briefly, and these will be as pink handouts in everybody's group, and we encourage you to share your verbal comments,
and if you would like use these sheets for
your own written comments and hand them in
today, there will be a box on the registration
table on your way out where you can drop these
off, and you can either identify yourself or
not, that's your choice, but please use this
as an opportunity to capture your thoughts
exactly as you would like us to have them.

Then the questions that we'll be
focusing on are what are the top one or two
aspects of transportation that the
Comprehensive Energy Plan should consider in
the next 10 years to decrease energy
consumption, and what options do you see that
can help Vermonters meet their energy needs
regarding transportation and land use in the
future?

Should the state set additional goals or
targets or modify existing goals and policies
for energy areas related to transportation and
land use? And, if so, what targets and
through what mechanisms should they be
encouraged or required?

And the last one is what can the
Comprehensive Energy Plan do to improve the
understanding of the relationship between energy, transportation, and land use?

So as we go into the small groups please feel free to comment on any of these in any order that you would like, and if you have other points that you would like to bring into the conversation, please feel free to do so as well, and there are -- may be people here who would like to talk about other aspects of the energy plan that are not referenced in your group. Again please feel free to do so, and make your thoughts known to us and we'll capture them.

Okay. Karin, can you give us a thumbnail sketch how we're going to break out?

MS. McNEILL: So the first group is the efficient vehicle group. Myself and Brian are facilitating and you go through here, there's a big room and to the left.

And the second group is the biofuels group. You walk straight through to the room through the middle room and then straight back. There are signs, and that is being run by Ed Delhagen and Kelly Launder.

And the third group, which is the
largest, is run by Gina Campoli and Chris Cole, and you may decide to break into two groups. To get to that you go straight through. You'll see the signs.

MR. DELHAGEN: Okay. Any questions? All right. We'll see you back here in about 45 minutes.

(Small group discussion. Recess. Large group discussion begins after recess.)

MR. DELHAGEN: Welcome back everybody. Thank you so much for your great comments. It sounds like there were some really productive pieces of information that came out in every session.

There are a couple of reminders. I would like everyone to turn their attention to Karin by door number one. There are the pink sheets that we handed out. I understand some people did not have copies of these. We're going to try to round up some extra copies for you to be able to provide your input before you leave, and there are also -- hold up the small piece of paper -- there's a small slip on the table with the link where you can find the current draft of the Comprehensive Energy
Plan and you can go directly to that site.

There's also an e-mail address where you can send your additional comments if you want to do so by e-mail. It's the engagement draft -- stakeholder engagement draft. There is an e-mail address on the web site. It happens to correspond with my name which is ed.delhagen@state.vt.us. So please feel free to send comments to any of us, but I'm the collecting point where those pieces will end up.

AUDIENCE: Will you publish these comments?

MR. DELHAGEN: The comments will be put on the web site and the conversation we're going to have now will be an opportunity for us to use the morning's discussion and the information that we had shared with the agency leaders on some broader questions and hopefully bring us a little bit deeper so we get more input and more suggestions about what the Comprehensive Energy Plan might include.

There will be a set of questions that we're looking at now that are posted in front of us here, large group questions, and again
these are food for thought. If you would like
to use these to tee off and start providing
some specific input, we very much appreciate
it. If you have other comments that go to
other parts of the plan or talk about other
aspects of transportation, please feel free to
do so as well.

There will be pink sheets with these
questions on them handed out as well. That's
for one of the DPS folks to make sure these
get spread around, and again please feel free
to add these to the record.

So the first question deals with what
should be the government's role in addressing
transportation related energy use when many
transportation decisions are made by
individuals. This kind of gets to the
question of how could we inform individual
decision making. What can the state -- where
can the state make the biggest energy impacts
regarding transportation and land use, for
example, infrastructure, commuting logistics,
et cetera?

What are the some examples of successful
transportation and land use programs,
policies, or initiatives that reduced energy upon which Vermont can either build or replicate? And what is the appropriate balance between carbon as a driver for energy policy and other criteria for transportation and energy development such as cost. And there are a lot of other criteria we may want to bring into that discussion.

So these are a few questions for people to share their comments, and I would like to open with Karen Glitman from the University of Vermont's Transportation Center. We've asked Karen, who has been working quite a bit on these questions, to share some introductory comments, and we do have a microphone that will be passed around. Please say your name clearly. If you represent an organization, please state the organization so that we can capture that on the record.

MS. GLITMAN: All right. Thanks, Ed. So as we were talking in our small group I thought about really thinking about this in terms of not transit, not commuter trips, but thinking about mobility for Vermonters and visitors.
We haven't had much discussion about our visitors to Vermont and how we move them around, but I would say there are four key overarching issues when I think about transportation and energy going forward, and the first is demographics. I know that came up in our group.

We know we're an aging population. Rural states are aging more than the rest of the country and rural areas of rural states are aging even more. We'll all outlive our driving capacity by about 7 to 10 years so that's something to think about, and there's a percentage of Vermonters who don't have full time access to a vehicle that we can't forget as well. So there's the aging piece of the demographics, but there's also an economic piece as well.

Energy costs, which is really the focus today, our entire system is predicated on cheap energy and I think we need to think about what does -- what happens to that system when that assumption of cheap energy is gone.

Funding. You heard Sue Minter this morning talk a bit about the need for the new
bridges and roads that are out of shape. It's possible that we have a transportation infrastructure that we simply can't afford. So how do we design a new system to provide mobility for Vermonters and visitors alike.

We also heard a bit about the project in Windham County that's underway looking at total transportation expenditures, not just from the public transit, but from the schools and from human service agencies and from non-profit and faith based organizations. We are spending a whole lot on transportation to provide mobility, but we maybe aren't spending it as efficiently as we can.

So those four issues; demographics, energy cost, didn't mention climate change, both the mitigation of transportation's impact and the need for transportation to incorporate some adaptations to the system is critical as well, and then funding, and then finally I think Sue called it the fork in the road I think about us being in a transitional era, and the question is what are we transitioning to? How long is it going to take to make that transition, and how are we going to minimize
the impact on the most vulnerable during this transition time?

And then my final suggestion is that we think about recommendations and answers to these questions that they be measurable. That we look at how much they impact the movement towards the goal that's established in statute. We look at how long they take to implement and how much they cost, and I think those three measures can provide some basis for really judging which recommendations make the most sense. So there you go. How's that?

MR. DELHAGEN: Wow. That's great. Thank you. Okay. We're just going to open it up to conversation. So who would like to jump right in? Raise your hand. Don't be shy. In the back.

MR. CURTIS: Hi. My name is Chris Curtis. I'm an attorney with Vermont Legal Aid. We represent low income Vermonter in a host of civil and legal matters, and in particular I guess as the energy discussion takes place and the state contemplates revisions to its energy plan we're very interested in one of the aspects Karen just
mentioned which is affordability and protecting the most vulnerable Vermonters.

So with respect to whatever might take place in the future as far as either demand reduction or finding the resources to implement reducing our carbon footprint or making energy infrastructure changes, we just want affordability, and low income and middle income Vermonters to be -- there might be a way to introduce some progressivity in either the tax structures that fund our transportation infrastructure or our energy infrastructure, or a way to provide a mechanism through which low income Vermonters and middle income Vermonters could have access to either rebates or some kind of income sensitivity with respect to those kinds of changes because we do recognize that to make change there might be costs associated with that change.

So a variety of mechanisms; whether it's transportation, whether it's efficiency measures, whether it's transition to other types of fuels, we want to make sure that that aspect is taken into consideration.
MR. DELHAGEN: Great. Thank you.

MR. GUYER: I won't walk all the way up this time, but I'm Frank Guyer and I'm deaf so I read your lips so I talk slowly sometimes.

One of the things that I would ask everybody in here is to take into consideration what I was thinking about was having more programs like this, but make sure you get the entrepreneurs, the people, myself, who are going to invest my money into your ideas because that's what I'm doing.

I am buying some farms, I am working on non-profit programs, but I am willing to spend the money if you guys do the work. Guess what? I'm an old man. I can't do it alone. So I start things and then I pass them on to other people when it comes time for other people who want a real job because I'm in the retirement mode.

MR. BRATTSTROM: One of the --

MR. DELHAGEN: Name please?

MR. BRATTSTROM: Eric Brattstrom from Warren and Warren is a fairly wealthy town, but we have three park and rides and people use them, and I think they are very important
to the programs as far as transportation is concerned, but as far as fuel and fuel use in general, I spoke at the meeting we had back -- I thought that a carbon tax is what we need here, and you can look to British Columbia in Canada who implemented a carbon tax and they love it there, and it works because it's non-regressive.

And the third thing I would like to talk about is the PACE program which makes money available to people so that they can cut down on their carbon use or fossil fuel use, and I doubt whether that has gotten off the dime yet, but it's critical so that not only wealthy people can get solar panels and keep their electric use down, but everybody can with the PACE program.

MR. DELHAGEN: Okay. Great. Thank you for those comments. Next?

MS. NOTTERMANN: Nancy Nottermann with the Central Vermont Regional Planning Commission. I'm the energy coordinator and I work with town energy committees, and I just realized in the public transportation group I was in we never talked about education; i.e.
educating the public about what has to happen, and so I just want to emphasize that education has to be a huge part of the plan, and also utilizing local groups, local energy committees. If you're looking at developing some small transportation routes, it needs to come from the people who live there, not come from high above as to what that route should look like.

MR. DELHAGEN: Okay.

MR. OMAN: Hi. My name is Michael Oman. I'm a transportation planning consultant. I would like to address kind of the first couple things about the first couple of questions up here on the board.

One is obviously governments, and I use the term loosely, public sector, so on so forth has an enormous amount of leverage particularly with respect to transportation in that the -- basically the public sector makes pretty much all of the transportation investments that establish what the system is, and this is one of the things that we did talk a little bit about in our group. We need to make sure that those investments reflect the
outcome that we really want, and that means what we don't invest in as well as what we do invest in. That can be very important. We tend to think we'll fix this, we'll fix this, and we wind up sort of having a point with no direction at all. We wind up without actually establishing a policy and following through on it.

By the fact that transportation and land use do occur in a cycle, although that cycle can be very long and it's often not easy to see the pieces of it right away, obviously we will be affecting the land use as well associated with that. The idea is to put transportation and land use into a virtuous as opposed to vicious cycle as we've typically seen. So get those two things working together as opposed to working to achieve high carbon use and that sort of thing, and one other thing that I would like to talk a bit about cost and affordability.

I actually did the first transportation plan for Chittenden County under the new federal law. It's called ISTEA, the Intermodal Service Transportation Efficiency
Act, and when we did that one of the things we did was we included the cost, the private cost of the individual transportation decisions. So when we had people driving all over the county we said this is a cost. It's going to be incurred by everybody and we are in essence making this a necessary cost, and when we shifted to other modes of transportation or other ways of looking at it we can see not just the increase in cost to run a bus system, but the decrease in cost to not have to have people driving cars all the time, and that can make a huge difference in terms of the way people actually look at the transportation investments that we're going to make, and I would kind of recommend that we do that.

I will say that the powers that be decided they didn't want to see this any more in subsequent transportation plans and so we don't see it any more, but nonetheless I think that it is an important bit of information when people are making the decisions about what kind of transportation system they want.

MR. KEHNE: Richard Kehne. I'm the transportation planner in Addison Regional...
Planning Commission.

The first bullet says a really key thing. Transportation decisions are made by individuals. I mean the policy, the policy and I think the plan should incentivize those individuals. What are they measuring? Are they measuring cost? Maintenance? Our policy should do whatever it can to make those decisions energy friendly. I mean that might be perhaps short, medium, and long range.

Where we have existing transit we should be heavily incentivizing transit use and heavily disincentivizing single occupancy vehicle use through whatever, whatever, parking fees, but in the long range I mean that really comes down to incentives for land use and development, smart growth.

How do we incentivize people to come in close in areas so we can provide effective master plans, but what's already been brought up twice and it's really important is making sure there's a wide based education program. Really telling people, reflecting what these real costs are and what they can save. I think that in itself will really play into the
decisions that they make in their energy consumption.

MR. DELHAGEN: Okay. As we move on please if you know specific examples that you can point to, please feel free to do so. Go ahead.

MS. WAHLE: Hi. I'm Diana Wahle and I'm here representing Youth Services of Windham County and also the Windham Regional Commission.

I have been part of an initiative regarding the promotion of integrated transportation planning that's been happening over the last year and a half. It began when youth services promoted some qualitative research that looked at the needs of youth in the future, what would make them successful, healthy, valued young people at the age of 21, and it was interesting to see that from the youth themselves that were interviewed that their needs had to do with internships, community service, jobs, access to places where they could gather and have fun together, and all of these top priorities had to do with transportation.
So we've been working in collaboration with the Windham Regional Commission to really look at first the needs of youth, but as it turns out we're, of course, also advocating for the needs of elders, people getting to work, people getting to services. Everybody who is a resident of Windham County.

We've done our effort in sequence and we began with reaching out to our school superintendents. We have four different school districts in Windham County, and interestingly enough every one of them came to the table wanting to think about ways to pool their transportation money used for school bus transportation.

I just had a note here that I thought would be of interest to you when you're talking about specific examples. Our four school districts serve 6500 students. They spend $545 a student per year, and they have learned that with high school students only 25 to 50 percent of those students actually take the bus even though they are budgeted and paid for, and for the K through 8 students 10 to 40 percent of those students take the bus.
So these superintendents are very motivated to think about alternatives and collaboration, and we've, with their support, been meeting with public transit providers and school bus providers as a first step and are now moving on from that meeting, that happened in mid March, to thinking about school district by school district in different corners of our county how some first steps could take place.

For instance, students need to be educated more about public transit options and we're thinking about how to do that effectively. How can a public transit model in one of our school districts -- there's already a partnership happening where the public transit gets students to the career center which is 20 miles away. Maybe that could be duplicated in other parts of our county, and then we thought about low hanging fruit which is we have something that's called Gallery Walk that happens once a month in three of our major towns, and we're going to, in our next step, be meeting with the public and the school bus providers and the
superintendents about how can young people get to Gallery Walk, which happens one evening a month, and then get home afterwards.

So we're just taking this bit by bit. Simultaneously the Windham Regional Commission is preparing an application for the Jeffords Center that relates to their support of innovative approaches to Act 153, and looking at school bus efficiencies, but also how this could relate to the larger transportation network, and so they will be submitting that application for a planning grant that will lead to a set of stakeholder meetings with non-profits, with town government representatives, human service representatives, higher education. Just expanding our stakeholder meetings to include the economic, community, and business leaders as well, and out of that sequence of meeting we will arrive at a real vision for transportation for our county that we think can be replicated elsewhere in the state. Thank you.

MR. DELHAGEN: That's great. Thank you.

Wow. Okay. We have several in the back.
MS. LEVINE: I'm Sandra Levine. I work with Conservation Law Foundation and I have a few suggestions on the government's role in addressing transportation and land use energy needs, and first make sure we provide for a range of options and not just investing in roads, and that the government's role, which focuses on spending and where our dollars are spent, but focus more on mobility which would provide a range of transportation options, and measure spending on ways that would reduce vehicle miles traveled which would create both an energy benefit and could also enhance mobility from a range of people in our society so it's not so that our transportation infrastructure is not just serving those people who drive single occupancy vehicles.

Thank you.

MR. DELHAGEN: Please hold the microphone up close to your mouth so we can make sure everyone can hear.

MR. RAPHAEL: Hi. I'm David Raphael. I'm a landscape architect and planning consultant, but I'm also chair of my local
planning commission and development review
board and energy coordinator for my town, and
I would like to maybe introduce a couple
thoughts to share with folks from our local
eexperience and my experience as a consultant.

One, from the perspective of somebody
who historically has driven a lot because of
my consulting work and through the office work
that we do, I recognize that we've got to
really promote a cultural change in terms of
how we conduct our business and how we operate
our office.

How that is happening specifically in
our office is, one, we're doing a lot more
conference calls. We're asking our clients do
we really need to be there? Can we
communicate effectively and accomplish what we
need to accomplish, you know, using conference
calls and now even interactive television and
Skype can really facilitate that.

Number two, I have one or two employees
who come from afar. One does not have any
possibility of using public transit because of
where she lives. What we've done is we've
said okay you can work four days a week or not
come in on certain times, you know, to reduce your energy cost. For the other individual who commutes within the county we've discovered that really what needs to happen is that the public transit options need to expand and improve and be a little bit more say flexible because there are only certain times when public transit works and operates in certain stops, and so to the extent that can improve I think that will be really, really important.

And I think, finally, you know the notion of what happens in a local community like Panton, probably many of you have never heard of Panton, it's maybe sort of a little bit of a source of pride. We discovered when the Champlain Ferry was put into operation because of the Champlain Bridge going down the only sign in the state that directs people to the Town of Panton was taken down, which is maybe a good thing, I don't know, but it just strikes me when you go on our town's web site I think it still says Town of Panton 600 people 1,000 cows.

So we're a very rural community, and in
our planning commission, we're just
redeveloping our town plan, one of the things
we've been talking about is where do people
work and how do people work and then how do
they get there, and so the interesting thing
is that in a town like Panton everybody goes
everywhere. There's no -- everybody has to go
through -- typically through Vergennes, but
people work in Burlington, people work in
Montpelier, people work in Vergennes, people
work in Middlebury. So there's really no
public transit system that's going to help
them day in and day out.

So things we've talked about is what is
in the future the feasibility of sort of on
demand transit. What is the synchronicity
between the senior vans that come out to our
town to serve folks? Can they be picking
people up and bringing them places?

One thing that might strike you as an
interesting side light is we discovered
there's more interest in working at home.
That now with the internet people -- people
can maybe do home occupations more
effectively. We looked at our zoning laws and
it didn't promote or make home occupations really easy. There are all kinds of constraints and limitations to what that looks like.

So in our next step in our local work we're going to look at how we can improve home occupation opportunities for folks who want to work at home and not have to commute and not have to travel all the time.

And then finally just a really simple thing and maybe a dumb thing. In the past I think Vermont's been very proactive and has had some success certainly with sort of these recreation paths. I think we need to maybe revisit that whole approach with an eye towards commuting and access and not just recreation, and again the example I'm going to give you is our town is four miles from Vergennes. All our children go to Vergennes Union Elementary School. Our kids wanted to ride their bikes to school most of the time of the year and we couldn't let them do that because we have one town -- one road through our town that's become a really busy commuter route and it's just not safe.
Many years ago we applied to the state to get a separate kind of transportation route or path side by side with our major road, and that just got lost and we never got any response and it kind of got dropped. So I think a little more thought about putting some resources into that even though we've already dedicated I think a lot of resources to bicycle routes and alternative paths more with an eye towards how that can support commuting, and I think those of you who spend time in Burlington know that folks now are riding bikes almost year-round. I mean we've really adopted beautifully to that in the winter and I think that could be a real possibility.

So those are just some thoughts from a local perspective as well as a business perspective.

MR. DELHAGEN: Okay. Great. Thank you. Do we have more comments? Again please try to keep your comments to about two minutes or so so we have room for everybody.

MR. GUYER: This will be short and sweet. I always give passioned explanations at the end and this is my passion is I am an
old man. I don't even want to say how old. That's how old I am. I am retired collecting Social Security. So I appreciate all of you who are working today paying my Social Security. I feel like I am on a trust. I trust you're going to go to work today.

What I am worried about is the time frame. As you get older, my age, I have a blood clot in my knee to my groin. I worry about dying everyday. Young people think they are never going to die. I know I'm going to die.

Here's my challenge to you folks. You young people who don't think that time is running out I'm telling you time is running out. If you are sitting here today and think that the state or everybody else is moving too slow, what I challenge you to do is quit your state job and become an entrepreneur, become a person who goes out and starts your own business to solve this problem now. I thought we had three -- in my time schedule I'm looking three to five years to do my energy stuff. That may not be fast enough for the whole world.
Vermont can be a leader, a pilot project. Use technology to solve the problem here within the next two to three years or five years and then get it out on the internet. Revolutions are happening across the country by tweeter (sic) and the internet and everything else. Use the technology. You have it here. Quit your job. Say today that's -- I can't wait any longer for the state to do a 15-year project. It's -- we don't have time and I tell you we don't.

Thank you.

MR. DELHAGEN: Up here.

MR. GROSS: Dave Gross from Hardwick. I would just like to pick up what the gentleman talked about. We have some problems obviously having so much of our infrastructure that needs to be repaired. There's also an opportunity, and the perfect example would be from a personal point of view and other people I know they really would like to ride their bikes or walk, you know, but it isn't safe especially in the wintertime.

Having that extra five, six feet on the side of all our roads would obviously reduce
the number of trips that I say well I'm going
to jump in the car to make a quick trip, and I
think you'll see those benefits will alone be
quality of life improved.

Going from a business point of view, yes
we have skiing and we have snowmobiling and
it's great, but that all occurs when it snows
which is only 10 months of the year. We do
have two months when we don't, and the bicycle
tourism, especially in our area, is
tremendously important and significant when
they are coming in. You know we have all the
Canadians come down and run these huge massive
bike trips through. That's an opportunity
having that six-foot lane or eight-foot lane
on all of our roads, and I mean all our roads,
not only would help improve the safety, but
also would go a long ways for encouraging our
tourism which, go figure, is our number one
money maker. Would attract a lot more people
to not only come to Vermont to ski but come to
Vermont to bicycle, and I think we would see a
very nice not only benefit for the Vermonters
themselves, but also for businesses and
visitors.
MR. DELHAGEN: Okay. We have time for another couple of comments and then we're going to wrap up the morning session. Anybody else?

MR. KEHNE: Richard Kehne again from Addison Regional Planning. Just commenting on things like bike infrastructure, it's easy to say put eight-foot shoulders on all the roads in Vermont, but it's not affordable.

I think what the plan has to do is be practical. We have to go for the low hanging fruit first and we have to be smart about that. There are places where you make investments where you get a big return for your dollar and that's an element in this. We all know it looks at the budget we've got right now, and I know in my work I focus, you know, where I can; village areas where there's a lot of potential commuter movement on bicycles and by foot, and I think that's what we really have to incentivize again. Make -- where there are a lot of origins, a lot of destinations we have to make sure people have a really viable alternative to get out of a vehicle and they will do it.
They are doing it out there now. There's -- you can see it at the grassroots. I've never seen a movement -- certainly in my work in Addison County I've never seen anywhere the kind of buzz and talk that goes around just in the main streets. I think there's a great opportunity here. You know we just have to facilitate that.

MR. DELHAGEN: Okay. Any final comments before we break? All right. Well I think I'll turn it over to Liz for a couple of summary comments, and if any of our other agency staff folks would like to make a few comments this morning as well, we'll wrap it up in about five minutes.

COMMISSIONER MILLER: Again just so much appreciate all of you being here and the talent in the room I mean is really amazing, right, as we hear not just geographic diversity, but occupation diversity and expertise diversity. This has been amazing and I love the comments about complete streets. As a former Local Motion board member before I took this job that rings very true to me, but focusing on those sorts of
infrastructure changes might both reduce our energy usage as well as support our economy in more ways than one. So I appreciate those comments.

We're going to come back at one o'clock, is that right, Ed, and we're going to shift the conversation -- it started to shift that way toward the end which I thought was interesting -- looking more toward land use and how it can help the energy picture. So that's going to be the conversation after lunch.

We're going to hear from Noelle MacKay after lunch I believe with some comments to start us off, and then have more of an opportunity to have this discussion. So please for those of you who can come back please do. I'm sure a few other people will be joining us as well, and for those of you who are unable to make the afternoon session, please do submit your comments. If you can't do it today, e-mail them to us and we do pledge to get those up so that everyone can see them. We're transcribing them at the Department and believe they will be an

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important resource for all of us. So thanks very much.

MR. DELHAGEN: Chris, would you like to add --

DEPUTY SECRETARY RECCHIA: No. Thank you.

MR. DELHAGEN: Sue?

DEPUTY SECRETARY MINTER: No.

MR. DELHAGEN: Thank you very much for those of you who will be moving on. If you're going to be sticking around, we'll rejoin the afternoon conversation at one o'clock.

(Luncheon recess.)

COMMISSIONER MILLER: Okay. Let's get started or restarted as the case may be. How many folks are here just in the afternoon who are new to the meeting just so I get a sense? Okay. Just a few.

I'm not going to go through the entire presentation that I went through this morning in order to make sure we can get to more substantive context.

(Appause and laughter.)

COMMISSIONER MILLER: Well now I will darn it to be contrarian about it, but so for
the few folks who are here are there any --

let me put up the heart of this which is our
statutory obligation.

The Department is essentially the
coordinator for the energy planning process
for the state, and the Department is charged
with making sure the Comprehensive Energy Plan
analyzes and projects the use, cost, supply,
and environmental effects of all forms of
energy resources used within Vermont, and then
provide recommendations for state action both
regulatory and legislative and for public and
private actions that can carry out the
Comprehensive Energy Plan.

And the statute goes on to say that the
purpose of the plan is to assure that Vermont
can meet its energy needs in a manner that's
adequate, reliable, secure, and sustainable;
that assures affordability and encourages
economic vitality through efficient use of
resources in a manner that's environmentally
sound.

I just like to put up a statutory
mandate because after all that's what we need
to follow and I think it has a lot of wisdom
in it. So I think it frames the debate and
discussion well.

So this afternoon we're going to talk
more about land use than transportation, but
just very briefly for those who weren't here
this morning keep it in mind that
transportation is about 33 percent of our
statewide energy use, and then when you look
at the other types of energy use there's
different ways to break it down, but
residential is about a third and commercial
and industrial is just over a third, and
within commercial and industrial and
residential you have a higher percentage of
electricity usage compared to petroleum based
fuels, but still a significant percentage,
particularly in residential fuel, oil based
and other petroleum, and then of course
transportation is largely driven by petroleum
based products, and this all contributes to
our greenhouse gas profile which in essence is
trending in the wrong direction except for in
very recent years when we've bent the curve.
As the climate groups and state government
have measured recently we've started to bend
the curve down in recent years, but the
projections going forward still don't look
favorable, and we need to really keep that in
mind as we do an energy plan.

So transportation and land use
integration between the two is very important,
and we started that discussion this morning.
In order to make the best decisions for
transportation one really needs to think about
land use and vice versa, and that's the
purpose of having this meeting in conjunction
-- those two topics in conjunction with each
other here today.

So thank you all for coming. Those of
you who are new thank you for spending half a
day with us. We really appreciate it, and let
me turn over to Ed Delhagen very briefly to
structure this afternoon's meeting. Thank
you.

MR. DELHAGEN: Okay. Everybody have a
good lunch? Gorgeous day.

To the new folks here we'll just spend a
few moments, help you get a sense of what's on
the agenda. There are a couple of handouts on
the table at the registration booth over
there, the copies of this morning's presentations so that you can flip through the slides and get a sense of what context was put in front of the group this morning, and there are some other handouts and utility facts and some other pieces of information that you may want to pick up. There's a copy of the agenda if you have not gotten that as well, and Karin might be able to hold those up if you need a copy.

This afternoon's agenda will continue in the theme that we've used this morning of looking at the combination of energy in the context of transportation and land use with a stronger emphasis this afternoon upon the land use question, and we're going to move in a moment into some presentations by some of our guest speakers, and they will continue to give us a little bit more of a context that will inform our breakout discussion that will follow.

So somewhere -- we're a little bit behind schedule, but not too bad. Somewhere in the ball park of 1:30, 1:40 or so we will break into small groups again as we did in the
morning. We'll take a look at the numbers here and whether we have two or three groups we'll decide that in a few moments, and then segue off to our breakouts again, and then we'll come back together for a final large group discussion and some synthesis comments from the agency people who are still here, and that will give us our opening two set of stakeholder meetings for us to move forward.

We do have a couple of working agreement points that I just would like to put up really quick. This is -- seemed to work well for us so far. Focus on the topic of discussion, and this afternoon the emphasis will be on land use, but we recognize there may be opportunities to bring up other pieces of the overall energy conversation and we do welcome those as well.

Keep your comments brief, and by brief two to three minutes or so depending upon whether in larger or small groups to make sure we have room for everybody to speak. One person at a time so that our court reporter can capture your comments accurately, and we're going to commit to completing the
project -- the meeting on time, 3 o'clock, so people can move on.

With that I would like to turn the conversation over to Commissioner Noelle MacKay, the Commissioner from the Department of Economic Development, Commerce and Community Affairs.

COMMISSIONER MACKAY: Good afternoon everybody. I also want to introduce Joss Besse who is also from the Department of Economic Housing and Community Development.

From this morning what is really interesting and exciting about the way we're looking at energy planning is the linkages. I spent my career doing land use, but I'm coming at it through different lenses, whether it was natural resource protection, water quality and quantity protection, or looking at how do we really revitalize and build in and around our downtowns, and what I heard a lot of in the morning was some of those connections. So people weren't just talking about what programs or policies, but the bigger picture. So how do we all play a role and how does where we build and where we grow integrate
with how do we pay for it and how does
different levels of public and private kind of
come together on those issues.

And so what was nice to see is that this
connection of us working together is not new
to people, and I've seen over my career that
change. That people are starting to see the
linkages and we're not so strange bedfellows.
So this is going to be a lot of photos and
information to get you thinking about these
ideas in the morning. I've got a lot less
tables and graphs because it's after lunch and
I want to see if you guys can stay awake.

So Vermont -- and this morning we also
had representation and probably still do from
the Agency of Agriculture, the Agency of
Natural Resources, Commerce and Community
Development, and for those of you that don't
know, our agency has tourism and marketing,
economic development, housing, community
planning, historic preservation. So, you
know, there's a lot of different interests
coming together and finding solutions, and
someone mentioned today that, you know, are we
just going to do it, and I think the people
that you met this morning are much more interested in not just planning and setting up some goals and strategies, but we are really all interested in implementation, and we're also interested in cross-agency working together to make that implementation a reality, and maybe that's just our stars in our eyes first three months, but that's our goal.

We have a land use pattern and state planning goals, compact villages surrounded by working landscape and it is unique. We were internationally third runner-up in terms of tourism with the Great Barrier Reef and The Walking Tours of Ireland. So our land use pattern is not only interesting and unique and part of our history, but where we grow in our downtowns, buy local, working together is really important, but we also have a linkage with farms, natural resource protection.

We just found out, and I know we were discussing numbers over lunch, but you know birding is larger in terms of economic development than skiing in Vermont, and so making sure that we have those resources and
linkages that to economic development is important, but we don't want to look at all of this in a bubble. We don't want to kind of frame it and say we're going to live in the past.

We need to look at our energy needs, our transportation needs, our community needs as we move into the future, and that's a balance of protection and also development; where we develop, how we develop impacts, all of those pieces. If we keep, you know, kind of eating up the countryside, we won't have any ag land and looking at nodes and connections with is going to be important.

So when we look we don't want to be in memory lane. We want to be moving towards the future, and we see the kind of vehicle miles do decline as density and mixing of land uses increases. Now this is nationally, but some of this stuff I'll show you it says it also works here in a rural context. Maybe it's not all of the solution and it may not be all of the same methods, but it's there.

So I always think of land use as nodes and connections and I thank the State of New
Jersey for this slide. Do we continue to kind of spread out over our landscape or do we try to concentrate and carefully select how and where we want to develop.

These are the slides that the Chittenden County NPO has as part of their plan. They looked at three different land use scenarios; existing trends, scattered sprawling development. They brought people together that looked at -- this is their workshop scenario which is really concentrating development in and around where they already have or redeveloping strip areas in and around the village and industrial parks; and the third was hard core really concentrating a lot of the development primarily in Burlington and Winooski, and then they ran some models and say does this make a difference.

If you look at the land consumed, there's a difference of 124 square miles compared to 24 in terms of the workshop and the core, and if you look at the transit rider projections, there's a much bigger -- begins between the trend of about 4 million riders to the core of about 10 million riders. So that
land use connection, and they also did
greenhouse gas emissions and there was a
difference in terms of that connection between
land use and transit ridership, but it's not
just about numbers. It's also affects
individuals. I think somebody mentioned in
one of the meetings that housing there's kind
of a broader context there. We need to start
looking at not just where we live, but also
how much it costs.

So every 21 percent of all household
expenses nationally is transportation. That's
more than health care, education, or food. So
it's just second only to rent, home costs.
And, again, here in Vermont, as was mentioned
at the beginning, it's our single -- driving
is the single largest contributor to
greenhouse gas emissions, and looking
nationally, you know, how we live makes a
difference.

So the suburban average we're looking at
in green household use and blue transportation
use in terms of energy, and the urban average
just kind of a regular house uses much less
energy than a suburban green. So somebody
that's driving a hybrid and has a very energy efficient house. So we have smaller scale homes, mixture of uses, ability to walk through and to services all play a role, and in terms -- it's also looking at distributed energy. So when we're looking at our land use energy connection we can think about energy systems, local distributed energy, and communities thinking about where they are going to get their energy, and it's much more efficient. So it's cost. It's efficiency. It's community building as well.

So how we grow matters and this is one of the stats that I have. So if you look at nationally, shifting 10 percent of new housing starts to smart growth would save almost 5 billion gallons of gasoline and 220 billion in household expenses. So it's a lot of money nationally and that's just 10 percent of our growth. So we need to kind of think about what that connection would mean for Vermont.

So we do have a lot of state policies. Most of it is embedded in a lot of different policies and programs that we have. Some of the umbrella of smart growth, compact mixed
use, looking at transportation options, housing options, where we grow, and what the connections are, agricultural benefits, as well as ensuring economic vitality.

So some of those land use programs are really embedded in our municipal and regional plans. A lot of people work to supporting that mixed use development, and most of our programs in state government are directed towards incentives. How do we provide incentives for growth in and around those areas?

So we have these designation programs. We designate downtowns, villages, Vermont neighborhoods for housing and growth centers and all of those programs provide benefits. It might be funding opportunities. It might be some different Act 250 triggers, but that's really kind of where we have put our energy in terms of guiding growth in the state, and it's really to provide targeted incentives for limited state policy and I think that somebody said does government have a role. That was one of our large questions at the last session. Does government have a role? And I
think if you look at federal and state transportation policy and spending and how we've grown and the dependence on the automobile I think absolutely state government has a role to play in this, and we need to think about where we're going to target our resources, our programs, and our energy in the next little while.

And looking to the future these -- this was something that -- this is White River Junction, Vermont in the future, and I think we do need to say what are our communities going to look like, what are our infrastructure needs, and what type of programs and policies are going to get us the most bang for our buck because we don't have unlimited resources in this state.

And when I think of Vermont in this, kind of our challenges as we move forward, I think of us as a family and each one of us have a different role to play. So whether it's state, regional, municipal, economic development, businesses, and individuals we all have a role to play in looking at where we want to go in the future as it relates to
energy policy, environmental policy, community policy, all of those are linked, and I think looking at one without looking at the whole picture we're going to miss significant opportunities to have multiple outcomes that we want to achieve.

And so just in terms of just like we all have different roles in our family, we also have different tools. So at the state we have policies, we have funding opportunities, and we have some incredible staffs. I know people said leave state government. We have some wonderful energized thoughtful staff that are really working on these issues.

We as a state can say where do we want to locate our businesses: Are we locating in walkable communities? On transit lines? Making sure that in the regional and local plans not only do we have clear goals but also doable strategies, and are we actually implementing those strategies year-to-year, and how are we measuring kind of the movement in these goals.

We've got a lot of energy around local energy communities. We've got a lot of people
in communities thinking about these issues, and it's really great that people are making the connection between the energy committees and building an efficiency to land use and hoping some of those folks will get on planning and selectboards. Thinking about how do we develop community energy systems and how do we make that efficient for communities. Transit oriented design. How do we think about partnering with our transit providers and looking at land use policies. So where do we want to have housing, what is that going to look like, and making sure that they are working in conjunction because a lot of times we've got the transit -- and Chris is over there formerly -- you know, they have got a great 50-year plan, but a lot of times the communities are not looking at those 50-year plans and saying where should we grow, where is the best place to put those businesses. How do we design for transportation alternatives? As Karen said this morning, it's not just about transportation. It's about mobility. How do we make sure we are moving people and everybody in a community,
those that drive and those that can't, kind of making sure that they get to where they need to go, and that's a quality of life issue and also a health issue.

Site orientation. You know if you're a municipality are you thinking about site orientation for, you know, solar, you know making sure that you're allowing that in communities? Are you allowing for smaller scale homes? A lot of communities are not thinking about, you know, the compact smaller homes that come with the energy efficiency and less use.

If you're a business or if you're an individual, where are you thinking about locating? I live in Burlington and I now work in Montpelier, and people talked about cost and why people would be taking transit. So for the first probably four or five weeks that I worked here I drove everyday and I realized I was going to lose my mind, and so for that reason in terms of people working with me I thought it would be much better if I took public transit, and it is -- you can work, you can have meetings, you can have a nap, you can
catch up on a good book, and you get to the
other end refreshed and ready to go and not
stressed, and there's a little bit of life
balance in there.

And also a lot of businesses are looking
at incentives for employees which are looking
at transportation. One company I knew of was
looking at a bonus for people for mortgage
down payments if they lived on a bus route,
took a -- walked or could bike to work. Other
communities are -- other businesses are buying
bikes for their employees. They are
subsidizing bus. So there's a lot that
wherever you sit -- so this is not just about
government doing something. This is about all
of us wherever we sit in any of our roles
working together, and I think what this
process is how do we as state government
organize ourselves and help marshal and
support all of the other efforts that are
going on around the state.

So I think what's exciting is I think we
are at a fork in the road, and this is an
exciting time to step up and get involved.

Thank you.
MR. DELHAGEN: Thank you, Commissioner MacKay. That was great. Okay. Our next presentation this afternoon is going to be from Deputy Secretary Chris Recchia who made some comments this morning from the Agency of Natural Resources perspective on carbon implications in transportation. This afternoon he's going to reflect on the land use question. Chris.

DEPUTY SECRETARY RECCHIA: Thank you. No slides. I'm going to spare you all. This is very quick because Noelle did such a beautiful job.

I just wanted to share with you the inspiration from the Agency's standpoint that to me this is at the nut. The land use and the interrelationship with everything else it is at the nut of this whole issue. So I would encourage you to think creatively and provide us with good thoughts about how to really leverage this because I think it affects our ability to maintain our forests and agricultural lands as both energy synchs, carbon synchs, and food and energy sources.

It affects our ability to influence our
transportation infrastructure and how we're going to invest funds there. It affects our jobs and our ability to work in a low carbon environment, and it affects our ability to do concrete things like municipal energy utilities and being able to do district heating and things like that, that we think are good concepts, but can't quite get our head around to make it happen.

So that's all I wanted to say. I was just going to inspire you with this being really to me one of the key little nuts, but Noelle did it really well so I don't have to say anything.

MR. DELHAGEN: Okay. We're going to break up into our small groups for the next session, and as Brian is bringing up the questions, this time for those of you here this morning we have the green sheets and these are handouts that you can use to record your thoughts.

It's very important for us to provide opportunity for you to share your thoughts in writing, and again we mention that there are opportunities today with this piece of paper.
If you want to walk out with fresh thoughts on here, there's a box at the registration table, we'll ask you to drop this off before you go, but a reminder for the new folks here. You can also make comments directly to the Department of Public Service through our web site, and there are little slips of paper over on the registration table with -- get you a copy of the draft that will -- review draft that you can comment on as well as e-mail address which happens to be my address that you can then send comments to as well.

Okay. So this afternoon we're going to break into some small groups again as we did this morning. It looks like we have enough here for -- we'll probably do three groups again. This time they are not broken out around any particular topic so we'll probably break us up in a moment, but these are the questions that we're going to tee up again for the conversation; and the first one is what are the top one or two aspects of land use that the Comprehensive Energy Plan should consider in the next 10 years to decrease energy consumption?
And then what are the top one or two obstacles in meeting current land use and energy goals? How might these be overcome? What role should state government play in doing so? How can the Comprehensive Energy Plan address these concerns?

And the final question, should the state set additional goals or targets for energy areas related to land use, and, if so, what targets and through what mechanisms should they be encouraged or required. They are similar questions to the ones we had this morning, but the focus is going to be on the land use part of the equation.

For those of you who came in late, if you do have other comments that don't relate to transportation and land use, there are other aspects of the energy plan, we welcome those comments as well.

So with that we are going to segue into three groups. I'll break us up here. Okay. Where is Karin? Okay. Karin is going to be over by the door. Brian, you want to go over by the other door, and, Gina, are you going to do another group for us? So we'll get our
facilitator over by the door.

I'm just going to do this kind of randomly. When you get to rooms we're going to have probably -- we're looking for about 15 or so per group. So if you wind up with too many, just try to rebalance your group and come up with a good break. So we'll do these three rows right through here will go with Gina. These three rows over here, including this first row, will go with Karin, and this set over here will go with Kelly, and we're going to reconvene back here at about 2:15.

(Small breakout meetings. Recess. Large group discussion begins after recess.)

MR. DELHAGEN: We're going to try to wrap it up this afternoon with the large group conversation.

While we're getting settled in I'll review some of the questions we're going to try to focus on this afternoon. Again these are up in front. Given a goal to reduce vehicle miles traveled, how can land use policy or tools be used to best achieve this goal? What policies or tools are working? Which need more support and which should be
eliminated? Any new programs to consider?

Next one. What policy programs between agencies form barriers to progress? Which work well? Are there others to consider? What kind of funding mechanisms might pay for these programs? How can the state help municipalities, committees, organizations, businesses to achieve these goals? Would an integrated state plan provide improved policy and direction on where to grow, place renewables, locate transportation hubs, et cetera; and last one, how can state agencies better support growth center programs to encourage communities to participate and promote new development in these areas as a means to reduce energy consumption.

As we did -- for the folks who came late into the meeting for the afternoon's conversation, we'll ask you to try focus your responses on these questions, but again if you have other points that you feel you want to focus on and share your input, we will be glad to take those comments as well, and there were a lot of interesting comments that came up in the small groups as well and you may wish to
share those thoughts or build on them or just
restate them with the whole group who will
hear those ideas.

So let's see here. Who would like to
get started? Who wants to kick off the
afternoon conversation? Don't be bashful. I
know everyone is a little bit tired at this
stage of the game, but who wants to open up?

COMMISSIONER MILLER: I'll answer the
third question. Yes.


MS. GLITMAN: Okay. I would say
something on the first goal. Just to watch
for unintended consequences.

MR. DELHAGEN: Hang on. Before you
start please do state your name. We have a
reporter here and we want to make sure --
state your name and speak into the microphone.

MS. GLITMAN: Karen Glitman from the
University of Vermont's Transportation
Research Center.

Your first goal I just wanted to caution
you about unintended consequences. While many
in the industry may agree on a goal to reduce
vehicle miles traveled, that's a measure
that's used in many other formulas to look at economic vitality and growth. It's a measure that's often seen as a measure of economic health. So it's just something to watch out for; that if you reduce VMT, what pops out in other parts of the state in terms of measures of economic growth and vitality.

So if people want to work on finding a better measure of assuring that people and goods have mobility and access to services that's different than VMT, that would be a great thing to accomplish.

AUDIENCE: The State of Washington has a VMT reduction target in place and I encourage the state, if we're going to go down that route, to talk to our colleagues in Washington DOT. If we're ultimately talking about emissions reductions, then it's not as simple as VMT reduction because you need to look at the types of vehicles that are being driven, whether they are hybrid, electric, tractor trailers, et cetera.

So that is a good thing to think about particularly in village centers and places where VMT reduction is more viable, but you
need to be -- we need to be cautious.

MR. DELHAGEN: Over here.

MR. KEHNE: Rick Kehne from Addison Regional Planning Commission. I agree. VMT, it depends on the vehicle that you use. I mean the means you use to produce it. I mean are you taxing? Are you bringing employment closer to the people? I mean there's great potential to be regressive if it's in taxation because of cost of living that drives people away. That's happening in the Upper Valley. That's a living example here in the state.

So we have to be careful if we use tax. We have to balance that with trying to build local business to replace those; provide employment opportunities, things like that closer to people's place of residence or we bring the residence closer to the employment. It's going to be a two-way street.

MR. DELHAGEN: Okay. Great. Thank you.

COMMISSIONER MILLER: That really gets back to land use. So rather than having a transportation goal of reducing vehicle miles traveled, having land use policies that have it occur is what you're talking about.
MR. KEHNE: That's right.

COMMISSIONER MILLER: And so thinking of it that way are there other -- I don't know, Karen. You probably have already done this thinking, but are there other economic metrics that we should be looking at that help us look at our land use and whether we're successfully creating the density that then supports the transportation goals rather than just looking at it strictly on transportation?

MS. GLITMAN: Well there's a lot of research going around liveability and metrics to determine livability and those include measures that may look at travel which is different than VMT.

I don't think anyone here would say travel in and of itself is a bad thing. People may say single occupancy vehicle travel has a different -- so looking at some of the measures for -- around livability may be a way to go at it, and there's a number of research papers on that. Gina.

MS. CAMPOLI: Gina Campoli. Most of the literature on the connection between VMT reduction and land use is heavily focused on
large urban areas, and the viability of alternatives in those areas is obvious.

There is a study going on right now in the Transportation Research Board that will focus on rural -- real rural areas in this action. It doesn't mean we should stop doing it, but keep in mind that the types of densities that are needed to really transform the transportation system are unthinkable in most Vermont communities, even Burlington. You're talking 20 units per acre to run a bus system that will pay for itself.

MS. TYRRELL: My name is Marianne Tyrrell. I'm with the Vermont Law School. A response to Liz's question. There are alternative -- I brought this up in my morning session. There are alternative indicators that are being developed around the world. Maryland has recently implemented them and they factor in many, many variables and you get a much more -- much deeper level of innuendo to measure overall well being that's not tied to something that we may not actually even want when we do simplistic measuring, and I know -- I just was at a meeting in
Washington last week about this and the policy office in their Department of Environmental Protection is the one who got this implemented. So -- and it really has potential for some transformational change in how everything is assessed and decision making is made.

MR. DELHAGEN: Okay. Great. Thank you. Who's next up here?

MR. GROSS: Dave Gross, Hardwick. On the second note on policy programs between agencies barriers to -- form barriers to progress I think we need to take a look at certain prejudices or attitudes or agendas if you will. I'll take the classic one.

A gentleman brought up an excellent point of use of agricultural hemp which is that hundreds -- literally hundreds of years of historical precedent plus modern facts behind it, but because of law enforcement attitudes towards the use of illegal substance, marijuana, it becomes a third rail. No one will even examine it, and the other one would be the Agency of Natural Resources opposition putting any new dams into any river.
anywhere in Vermont really cuts down on the
use of modern small scale hydro.

And looking once again to the history of
Vermont, in our history that our village
centers are sited at optimal hydro locations,
but that becomes a third rail also, and I
think that those type of questions really need
to be looked at across the board and say this
is here, this needs to be addressed, and if
nothing else we need to write it down and, you
know, not just wink at it and nudge it and say
well we're not going to go there.

MR. DELHAGEN: Okay. Thank you.

MR. GUYER: I have three things and I'll
try and make them short. First of all, and I
don't want to embarrass Liz by praising her,
but I think we can all thank her for putting
on such a terrific program, and the thing I
want to thank her for is showing leadership
because remember I'm the energy guy. What am
I trying to get you to do? Shut off lights,
shut off the electric faucet in empty rooms,
and don't use a lot of lights when you don't
need them or guess what? Came in today the
lights were not all on. Terrific I said. Liz
is doing a great job.

The second thing I said, I come in after lunch they are all off on the top. We're even getting better. That's great. It takes leadership at the top to set an example, and what I would say to Liz; Liz, today if you go back to the dining room at the State House and you see Shap, say Shap it looks to me like all your lights are on in the cafeteria again today. The sun's out. Why don't we shut them off. So that's my comment for Liz. I think she's doing a great job.

The other person I think is showing a great example here that you may not be too aware of, didn't think about how difficult it is to change your behavior and, you know, Noelle changed her behavior. She drove up from Burlington on a bus. How many people in here go from Burlington to Montpelier on a bus besides myself and Noelle? Any other hands? Three. That's changing behavior. That's what one person can do to make the place a better place, and she's the one who is doing it.

You need your leaders and you have two great young women here who are showing real
leadership because they changed their behavior. When everybody else begins to change their behavior we will make some progress. We can talk about it all day long. We can plan about it all day long, but at the end of the day did you change your behavior. That's what I'm asking you to do. Thank you.

MR. DELHAGEN: Okay. Great. Thank you. Follow-ups?

COMMISSIONER MILLER: Wow, the audience is quiet.

MR. DELHAGEN: I think we've worn everybody out. Nancy.

MS. NOTTERMANN: I'm going to risk -- I don't think I said this this morning, so stop me if I did.

Coming from an agricultural background -- Nancy and I are in Central Vermont Regional Planning Commission working with energy committees, but coming from an agricultural background, and we said this in our small group, incentivize; i.e. pay to have solar panels put on farm buildings and help subsidize and support our farmers to survive and it will help our local energy. And then
we talked about distribution. The closer the generation is to where the electricity is used the more efficient it is. Oh, and education in general.

MR. GROSS: Since no one else is talking this will encourage people to give up the microphone.

MR. DELHAGEN: Let's go deeper.

MR. GROSS: One thing. I did hear one comment and this is the classic of the transport system, bus system won't pay for itself, you know, and sometimes I think the state needs to get off of the idea that everything has got to be at zero cost. It's very nice if it does or actually generate money is great, but if there are a lot of hidden costs that are hard to quantify or just general quality of life operate at a loss, and a perfect example is our public education system. You know those are tremendous loss centers if you look at our dollars we pour in because we don't make a profit off them, but obviously as a community we get tremendous benefit out of it.

So I think the idea like when you look
at something and say running this bus down this road, yeah, you might be quote unquote on paper be losing a thousand dollars a day, but the benefit is tremendous. So that's a mindset that has to be broken.

MR. MASSE: Has anybody ever thought -- okay. I'm Marcel Masse from Craftsbury.

Has anybody ever thought about, you know, isn't it nice, but a bus that goes to IBM, stuff like that? Has anybody approached IBM? Maybe they will buy the bus.

AUDIENCE: They should.

MR. MASSE: Has that been done?

AUDIENCE: Yes.

MR. MASSE: What was the answer?

AUDIENCE: No.

MR. MASSE: Maybe there's other avenues. I don't know, but I get the impression that if the state pays for this and pays for that for the bus, I'll tell you an episode.

I have a poultry processing plant in Craftsbury. They built -- the State of Vermont built a mobile poultry processing. I know what the cost was because I did a lot of research on it. The cost was $125,000. They
sold that for $85,000. My money, your money, everybody else's money went into that. Now who has the authority to do that? I would like to know. I would like to talk to them. So maybe the state. I don't know.

MR. DELHAGEN: That might be a question for the Agency of Ag.

MR. MASSE: I know that. Yeah. I'm just trying to tell you what the state does.

MR. DELHAGEN: Okay. Other comments? Get some more good stuff before we have to adjourn.

MR. TALKA (phonetic): Hi. I'm Theo Talka. So I had the opportunity to visit the Netherlands and they have a wonderful system of bike paths and completely connected to public transportation, and that's something that really could happen at the state level handed down to the towns because the towns have to figure out the right bike lanes and what's the right amount to measure on the roads. So maybe the state could help by having like efficient bike path guidelines and stuff and then hand it down to the towns. That's it.
COMMISSIONER MILLER: Can I shift the focus just -- I don't want to cut off your comment so feel free, but I would love to hear from folks. These were intended as kickoff working meetings and that's why we had them in the middle of the day and invited the folks who are in the room who represent so many different organizations and entities, and part of the purpose from my point of view is to get some feedback on the process going forward as well because frankly, you know, those of us in state government working on this are still forming the plan for the plan, and this is a really good time to inform us what you think we should be doing.

We going toward public hearings in the summer and we'll have those, but what other things should we be looking at and doing to get appropriate feedback without -- I mean frankly without bogging down the process overly? How do we balance that and what ideas should we be using?

We are planning on web comments. We're having these meetings. We have other ideas in the works, but I would be interested in some
feedback on the process as well.

MR. DELHAGEN: That should keep us going for a while.

MR. BAKER: Paul Baker with the Chittenden County Regional Planning. I don't have a lot to say about that, but first in response to I think bullet two there I do have a concern about the stormwater permitting process or requirements and being able to do smart growth development, and maybe those two policy objectives are working in opposition, and so some place where there's some offset where we can do some agricultural offsets or something to offset infill and redevelopment in urban areas would be a good objective. Want to put that out.

And process wise I guess since I got the mike I guess, you know, I think there's definitely the Regional Planning Commission could help in terms of regional discussions, particularly municipalities, and I'll volunteer my folks, my brethren, to do that. So happy to do that if we can help.

MR. DELHAGEN: Comments on either the questions or process?
MS. NAYLOR: Kathryn Naylor. I'm a member of the Craftsbury Energy Committee and I'm also a MBA student in managing for sustainability with Marlboro Graduate School, and I just wanted to -- it is sort of process and I was going to say this before you said that. I've heard this is going to be a live working document after it's actually put forth and I think that's great. I think that this process that you've started is also great, and I'm hoping that it will continue in the implementation and networking and making connections with non-profits, government, businesses, and local communities to really get as many people on board and involved as possible, and also to revisit it often.

And, lastly, just I hope that the benchmarks that we set and the strategy of how we're actually going to implement the goals that we decide on will be measurable, realistic, but also aggressive, and I was going to say something else and I forgot.

MR. DELHAGEN: We have a couple comments up in the front.

MR. RAPHAEL: I'm David Raphael. I'm
from the Town of Panton. Just another thought about process. You know one of the things about these kind of projects and efforts is that they tend to reach folks who are already involved, interested, aware, know about these.

I think you've got to get out and talk to the person on the street. I think you have to go beyond all of us who are really committed and interested and involved, but I think you need to get out. What do the regular folk feel about energy? What are they doing? What are their issues? What are their challenges in terms of, you know, the energy future? What do they think about, you know, in my backyard, those kinds of things?

These processes tend to kind of reach those who are self- -- who are already interested. How do we get to some folks we don't typically reach in the process? That would be my suggestion, that you look at ways to do that. Kids too.

MS. LEVINE: Thanks. I'm Sandy Levine, I'm with Conservation Law Foundation. A couple of thoughts. I think that it would be really helpful for the state to provide some
strong leadership regarding local and regional plans and zoning and to have them support that. We have good policy goals in our state statutes that are often not followed in either our local or regional plans and zoning.

Secondly, I think state spending, the state spends a lot of dollars on roads, on bridges, on schools, on sewers, on all sorts of things, and all of those have land use impact, and those need to be considered and support responsible land use that would help reduce pollution.

And in terms of a process going forward, I think the use of surveys could be helpful to engage a lot of people. I also think presenting some models or some visual for people to respond to where they can actually see something; do you like this, do you like that. The example that the NPO did was sort of along those lines, and I think something like that could be done for this as well.

MR. DELHAGEN: Thank you.

MR. OMAN: My name is Michael Oman. I'm a transportation planning consultant still from this morning, and I did want to comment a
little bit on process, and to a degree I'm simply echoing David Raphael's comment.

I think to a certain extent we have rounded up the usual suspects here and we need to -- if this is really going to work, I think we need to engage more broadly than this, and I was thinking specifically of the business community and that sort of thing, and I think it would be a shame, though, in a way to sort of have us all sort of sitting here talking about energy from our plannerly, public sectorly kind of point of view, and then go over and listen to the business community over there in isolation and get everybody sort of saying I think we need to start a conversation between; not just a conversation that, you know, one group makes and the other group makes and what do you know, they don't really agree with one another very well, but to really sort of figure out how to process through that, and I'm not totally sure how to do it because I've been trying to do it all my career and have not totally succeeded.

I've tried about a hundred different ways, but nonetheless I think that it will be
important because I mean this is an important
group. We're talking about something that's
going to be key to economic development and
economic success in the state, and we want to
make sure that this is working for the people
who have got to actually do something with
that.

MR. DELHAGEN: Thank you. Couple more.
We have time for a few more comments.

MS. SYMINGTON: Gaye Symington. I would
just like to build on the process question and
David's comment. I would specifically suggest
that you reach out to schools. There's
incredible stuff going on in the colleges.
Middlebury College, the energy going into that
solar decathlon house is so cool right now,
today and this fall. The work that the Mount
Abe High School kids did around looking at
grass pellets, they just had a ton of -- we
had put a ton of work into work that really
now, you know, is reflected in state policy.

It was a middle school in Underhill that
came up with our -- what is now our idling --
anti-idling school bus law. There's a ton of
energy and ideas in our kids and at all
levels, and engage, you know, in an intentional way their ideas I think would be really important, and I would also be really intentional about reaching out to Vermon ters who typically don't show up at public meetings, and I would look for advice from the CAP agencies about how to do that, but look for the low income community, look to input from the disabled Vermonters and be really intentional about that, and I don't know specifically, but there are lots of people who would have good ideas about that.

And my last comment, this came up in the earlier session, is somehow make this fun. We had some specific ideas for you, Liz, in terms of how it's presented at the end with solar powered speakers and microphones and Liz Miller and the Nocturnals. I think you could do it.

MR. POSNER: Ira Posner, Sterling College. I just want to know if the Department of Public Service can have some goals for public transportation plan in the planning process, and I would say just personally I would think one of those goals
should be investing in a clean bus intercity transportation system so all the little towns in Vermont have a bus system which we don't have. They cut off the bus system from Albany to Rutland and there's been -- has been a big issue for people from Albany, New York to Rutland that might need train service, but they cut off train service from Albany to Rutland.

I think that's a big issue for people. I don't know. Maybe you guys were talking about public transportation earlier.

COMMISSIONER MILLER: We did.

MS. WOLFE: Dori Wolfe with Strafford Energy Committee and potentially part of the process.

I would like the survey idea. I think using energy committees or regional planning to bring those surveys out to reach those different -- and give us guidelines of who you really want us to reach, but if you make the questions much simpler. These questions overwhelm me, and potentially these questions are very simple, and then they are actually multiple choice because what is possible. We
may not be able to do all the busing we want and need now, but ask us a range you know. So survey maybe with multiple choice answers.

MR. DELHAGEN: Okay. Thank you. Time for one more. Two more.

MS. J. MILLER: I was going to comment because some people have already spoken to this about the importance of local and regional plans. The VNRC and League is putting out an energy planning guide. We are working with the community energy committees and regional planning commissions and rolling that out and talking about it in the context of -- and needing to be targeted towards the state Comprehensive Energy Plan. So there's an avenue. We're very excited about working with you all on that.

And then, secondly, I forgot now. I'll turn it over to Nancy.

MS. NOTTERMANN: But if you remember, you can have it back. I guess the thing I wanted to jump off from Gaye over there that I've been working a lot with some schools, and one of the key things at Harwood Union they are starting to work on right now is they are
determined to get the teachers to carpool, and
I'm not sure how successful, but they are
determined and they want to make the community
more aware.

So tapping into schools. I mean you
educate the people that are not going to show
up at meetings like this or even ones during
the summer in the evening, you educate them
through their children and that's my big
point.

MR. DELHAGEN: All right. Well with
that we are going to bring this part of the
stakeholder meetings to a close.

I would like to thank you all for your
input. We are listening to you. We have
actually included some of your feedback
already into our process. Light bulbs are one
example of that, but there is a lot of work to
do and we definitely need your help, and all
the ideas and thoughts you have so far have
been really helpful for us, and now I would
like to turn it over to Commissioner Miller to
have the last word and to bring us to a close.

COMMISSIONER MILLER: I think you did a
great job. Actually that last word pretty
much does it, especially the process input at
the end, I really appreciate that because it's
important to get that perspective, and you
know it's funny. In the last -- we had two
sets of meetings, as many of you know because
you attended both in the last couple of weeks,
and I kept writing in my margin, which is
where I put my kind of key things to go back
to, I kept writing education, and a lot of
times that was focused on community education,
but the point that several of you made today
tying that back with education; education the
system that we have and how do we get the
planning process to schools I think is a real
key take away for me, and I appreciate that.

I just wanted to -- because I was quick
at the beginning I never actually said the
deadline. I know most of you know that, but
we are planning to get a Comprehensive Energy
Plan to the Governor October 15th. So time is
short. It will of necessity identify future
action. It should anyway frankly, but
particularly given the timeline that the
Governor has given us, what he wants to see is
the road map and where we're going, and we're
talking about at the agencies, the departments, putting the plan together, how do we make it a communication tool for the state and an implementation plan going forward.

It's frankly going to be a big challenge, and so having all of you here today and helping with the ideas and the process is just hugely important, and I really appreciate it and we will be doing more outreach survey coming, web site, you know, more engagement on the web site coming. I'm committed to figuring out a way to engage with the education system and that's an excellent idea, and frankly I will admit a new one coming about from these meetings which is why we're having the meetings.

So that's really good, and again thank you all again so much. If you want to contact anyone at the Department or at ANR or at ACCD or at Agriculture, Buildings and General Services on these topics, please feel free. You can start with the Department of Public Service. If you want to know who specifically to contact on a certain issue, we will certainly get you in touch. Thanks so much.
MR. DELHAGEN: Thank you for your contributions. We really appreciate it. Okay. Everybody have a safe drive home.

(The meeting adjourned at 3 p.m..)
I, JoAnn Q. Carson, do hereby certify that I recorded by stenographic means the meeting re: Comprehensive Energy Plan at Noble Hall, College Street, Montpelier, Vermont, on April 7, 2011, beginning at 9 a.m..

I further certify that the foregoing testimony was taken by me stenographically and thereafter reduced to typewriting, and the foregoing 128 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 Burlington, Vermont, this 11th day of April, 2011.

__________________________

JoAnn Q. Carson

Registered Merit Reporter