The New Hampshire Climate Change Policy Task Force

New Hampshire Climate Action Plan

A Plan for New Hampshire's Energy, Environmental and Economic Development Future

Appendix 3:
Public Comments

Prepared by the
NH Department of Environmental Services
March 2009

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The comments contained within this document were provided by individuals who participated in public engagement portion of the Climate Action Plan development process. The assertions contained within this document do not necessarily represent the opinion or position of the Climate Change Policy Task Force or the Department of Environmental Services.

Part 1

Written Public Comments
To the Climate Change Policy Task Force

Received

February 2008 – December 2008

The comments in this document were mailed or submitted directly to NHDES and the assertions they contain do not represent the position or opinion of the members of the Climate Change Policy Task Force or the NH Department of Environmental Services.

Commissioner Thomas Burack

I am writing to you in regards to the Climate Change Action plan. As a lifelong resident of such a beautiful and healthy state, it came as a surprise when I heard that we are the only state in New England without one. It only makes sense to want to conserve what we take for granted, not only in this state but globally. We need an aggressive plan that at the very least aims for 10% reductions by 2020. We can't afford to wait another decade to get moving on this. I would be willing to pay a bit more on electric bills and other energy expenses

if it will achieve real carbon reductions soon.

Thank You for your continued efforts in committing to produce a plan.

John Croto
Manchester, NH

Commissioner Thomas Burack
N.H. Dept of Environmental Services
29 Hazen DR
Concord NH 03301

Dear Commissioner,

I believe that we do need to formulate an aggressive plan to protect and conserve our natural resources, for the health, safety, and overall quality of life for all N.H. citizens to enjoy.

Sincerely,

Marc R Laplante
18 Arizona St
Manchester NH 03104

5/5/08

Dear Commissioner Thomas Burack

I am writing to you on behalf of the Clean Water Action. I am a young mother so for my daughters future I would like to start building a better tomorrow today. These have been hard times for my family and I but I am willing to pay a bit more on electric bills and other energy expenses if it will achieve real carbon reductions soon. My daughter will be 23 in the year 2020, only two years older than I am now and we need an aggressive plan that at the very least aims for 10% reduction by then. Thank you so much for your committment to finding and producing a plan.

Sincerely,

Danielle Mero

Danielle Mero

To: Commissioner Thomas Burack

Subject: Climate Change Action Plan

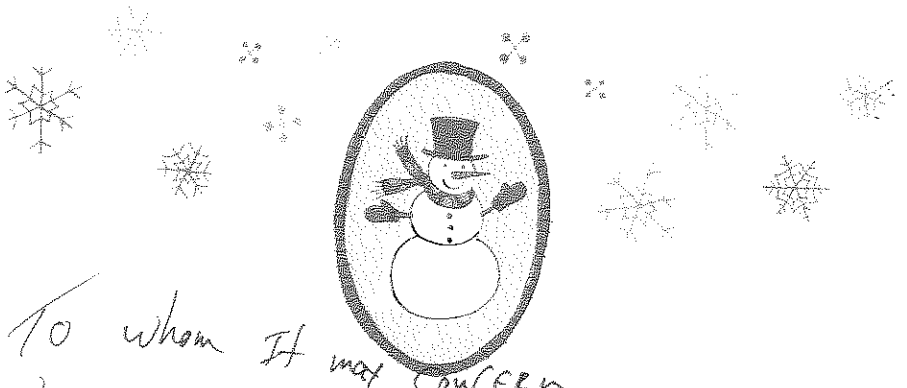
As a concerned citizen of New Hampshire, I can sure you that it is important to me and my family that our environment is cared for and maintained for our future. If my voice is to be heard then let it be said , "I want our waters to be clean" & "I want real attainable solutions to be brought to light for carbon reductions.

It might be necessary to come up with a solution to help factories and people lower their emissions into our environment.

I truly want to thank you for your commitment to producing a plan which will aid in keeping our earth healthy.

Sincerely

Kathlene A. Stevenson



To whom It may Concern,
We in NH need to address the
Global warming epidemic NOW!
Please make this a priority

Eric R Koeth
Concerned tax Payer

26 Taft Rd
Portsmouth NH 03801

Commissioner Thomas Burack,

Thank you for committing to produce a plan to reduce carbon pollution. We are committed to an agressive plan that aims for a minimum of AT LEAST 10% reductions by 2020. We can't afford to wait another decade to get moving on this, and we have to move quicker to catch up to our neighboring States.

Saving energy through efficiency and conservation are much more effective cost solutions than burning "clean coal" or other industry-backed measures. Continued or expanded reliance on nuclear power is not a viable contribution to reducing global warming pollution & building a sustainable energy system.

Thank you,
Leo & Heather Nawtt

May 5, 2008

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Commissioner Burack,

It has been brought to my attention that among our neighbors, New Hampshire is the only state without a climate action plan, despite an earlier committed agreement with the other New England governors back in 2001 to produce one.

First, I'd like to thank you for your commitment to produce a climate action plan. We can't afford to wait; we need to come up with, and implement an aggressive plan now.

While it is tempting to, after considering the potential burden such a plan may place on our government and business resources, consider conservative measures, or even deferring action at all, we should view this as an opportunity for New Hampshire to lead the region both politically, environmentally and technologically.

New Hampshire is a great place to live, work and visit. It won't stay that way if we aren't able to address some very serious challenges that we face as a state. The longer we take to enact a climate action plan, the costlier it will be, both fiscally and in lost opportunity.

Jim Correia
Manchester, NH

1339 River Rd.
Manchester N.H. 03104
May 7, 2008

Commissioner Thomas Burack
N.H. Dept. of Environment Services
29 Hazen Dr.
Concord, N.H. 03310

Dear Commissioner:

In our current times we need to focus a good portion of our energy and money towards the environment if it means that it may cost the tax payers a little more I think you would find that most would agree.

At the state level much would have to be directed too the same goal.

Better AIR / WATER / LOWER CARBON POLLUTION ect.... The sooner the better I don't think we can wait.

The State of New Hampshire should lead the way not follow.

Very truly yours,
Willaim C. Blanchette

May 8, 2008

Commissioner Thomas Burack
NH Dept. Of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Leonard R. Desrochers
6 Harold Street
Manchester, NH 03104

Dear Mr. Burack:

I am writing to you in regards to a very important matter, and that is our environment and the lives that depend upon it for their survival – us, our children and grandchildren, their children and their children, and grandchildren....

You see it is up to us to start solving the problems of today so that we, and future generations will have a place that they can call home, one that has the ability to sustain life; life as we know it. There has to be changes made, so we have now and into the future cleaner air, cleaner water, all the things we need for survival on this great planet we live on. After all we only have on place we can call home and if we continue to destroy it without any regards to the future we are destroying not only ourselves but all of those who will follow in our footsteps.

I know the problem we are faced today didn't happen over night and I'm realistic enough to know the problem won't be solved over night either, but I do know that I would LOVE to leave my kids and grandkids something that I would be proud to say, I had a helping hand in cleaning up or getting the government to do something on my behalf to get companies to clean up their act so the environment will be the winner, making us all winners in the end..

We need cleaner air, cleaner water, thereby we need to stop environmental polluters by making them responsible for their actions, so they don't continue to destroy our lives and all others who will eventually follow. We have only one world and it's that world that we need to protect and take care of any way we can. At the rate things are going, unless something happens to change things eventually what we have will no longer be of value for future generations to come. So we need to make changes now so our future is safe as well.

Thanks for reading the above information and I hope you have it within your power to make the changes that are needed to save the world, the only world we know.

Sincerely,

Leonard R. Desrochers

May 8, 2008

Commissioner Thomas Burack
NH Dept. Of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Anne L. Desrochers
6 Harold Street
Manchester, NH 03104

Dear Mr. Burack:

I am writing to you in regards to a very important matter, and that is our environment and the lives that depend upon it for their survival – us, our children and grandchildren, their children and their children, and grandchildren....

You see it is up to us to start solving the problems of today so that we, and future generations will have a place that they can call home, one that has the ability to sustain life; life as we know it. There has to be changes made, so we have now and into the future cleaner air, cleaner water, all the things we need for survival on this great planet we live on. After all we only have on place we can call home and if we continue to destroy it without any regards to the future we are destroying not only ourselves but all of those who will follow in our footsteps.

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We need cleaner air, cleaner water, thereby we need to stop environmental polluters by making them responsible for their actions, so they don't continue to destroy our lives and all others who will eventually follow. We have only one world and it's that world that we need to protect and take care of any way we can. At the rate things are going, unless something happens to change things eventually what we have will no longer be of value for future generations to come. So we need to make changes now so our future is safe as well.

Thanks for reading the above information and I hope you have it within your power to make the changes that are needed to save the world, the only world we know.

Sincerely,

Anne L. Desrochers

May 8, 2008

Commissioner Thomas Burack,

First, I would like to greatly to thank you for providing an opportunity for citizens to offer input on the state's Climate Change Action Plan.

I strongly believe that we need an aggressive plan that at very least aims 10% reductions by 2020 – with the conditions our environment is in we can not afford to wait any longer to get moving on this. Saving energy through efficiency and conservation are much more cost-effective early solutions than trying to burn "clean coal" or other industry-backed measures. It important to know that continued or expanded reliance on nuclear power is not a viable contribution to reducing global warming, pollution, and building a sustainable energy system.

The time is now for New Hampshire. We must reclaim our leadership with bold solutions for global warming and we must act on them now. New Hampshire is the only state not to have a plan, I think this is something to be ashamed of – let's rid ourself of this shame – step up and do it together.

Thank you.
Most sincerely,

Alysha Phaneuf
338 North Bend Drive
Manchester, NH 03104
603 647-8430

5/12/08

Dear Commissioner Burack,

Please support Clean Water Action. We must begin to do something to save our planet for our children and grandchildren.

Sincerely,

Jane and Russell Beaumont

Concerned Senior Citizens

Commissioner Linnack

Please take all necessary steps to prevent pollution - stop toxic trash and ensure clean and safe drinking water.

Concerned N.H. Resident

May 13th, 2008

Dear Commissioner Thomas Burack,

My name is Kimberly Ndombe. I just finished my first year of college at Syracuse University. I am writing to you to offer my input on the state's Climate Change Action Plan. I know that now is the key time to contribute to the development of the Action Place. First off, I want to thank you for committing to produce a plan. New Hampshire is currently the only state in New England without this type of plan. So again, thank you for your commitment to this plan.

I know that you are probably receiving a lot of input from people across the state regarding this plan. I hope you take my opinions into consideration. I think that we need an aggressive plan that at the very least aims for 10% reductions in carbon pollution by 2010. I do not think we can afford to wait another decade to get moving on this bill. Our New England neighbors have already been working on changing their carbon footprints and we need to catch up to them.

I think the citizens of this state should be willing pay a bit more on electric bills and other energy expenses if it will achieve real carbon reductions soon. I know I am willing to do so. Saving energy through efficiency and conservation are much more cost-effective early solutions than trying to burn "clean coal" or turn more food into oil or other industry-backed measures. I also think that continued or expanded reliance on nuclear power is not a viable contribution to reducing global warming pollution and building a sustainable energy system.

Thank you very much for taking the time to listen to my opinions and again, thank you for your commitment to this plan.

Sincerely,

Kimberly Ndombe

Dear Commissioner Burack, May 12, 2008

I was surprised to hear that NH was the only state in New England that did not have a Climate Change Action Plan in place. The original goal to get levels back by 10% by 2010 was the very least we should be doing. We cannot wait another 10 years.

Energy costs may be high but we all need to do what we can (even if that means paying a little more) to achieve real carbon reductions soon.

We need ways to save energy through efficiency and conservation, now. Trying to burn "clean coal", turn more food into oil, or other industry-backed measures will take time. Continued or expanded reliance on nuclear power is not the answer either.

When I tell people I live in NH they always talk about how beautiful it is. They mention the mountains, the lakes, the rivers, or the ocean. Those things are what make NH special. We need a government that is willing to do whatever it takes to become an Energy Efficient State to protect those very things.

Thank you for committing to produce a plan!

Sincerely,

Karen M. Paquet
158 Victorian Way
Manchester, NH 03104

Commissioner Thomas Burack
NH Dept . Of Environmental Services
29 Hazen Drive
Concord NH 03301

May 15, 2008

NH DEPT. OF
ENVIRONMENTAL SERVICES

JUL 11 2008

RECEIVED

Commissioner:

I am writing this letter in support of the Clean Water Action Campaign Focus. I would like to thank you for committing to producing a plan to help with the issues that face all of us in the state concerning our precious resource. As a father with a young family and an outdoors man the issues concerning lakes and rivers concern me the most, but also includes our drinking water. Again thank you for helping this organization.

Thank You,

James Labarre
Manchester NH

May 16, 2008

Kellan Browinski
89 Beech Plum Dr.
Manchester, NH 03109

Commissioner Thomas Burack
NH Dept of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Commissioner Burack,

I'm writing as a concerned resident of the Granite State. It has been brought to my attention that you've picked up the reins of helping create a Climate Change Action Plan. I was very glad to hear this because I am a 1 year old child with a very long future so thank you for resurrecting this initiative.

Some thoughts to keep in mind during the drafting of this plan:

- We need an aggressive plan that at the very least aims for 10% reductions in carbon pollutions by 2020
- We can't afford to waste any more time on this - we need actionable and enforceable steps now

Thank you for your attention and please keep up the good work!

Kellan

KELLAN

May 16, 2008

Laurie Browinski
89 Beech Plum Dr.
Manchester, NH 03109

Commissioner Thomas Burack
NH Dept of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Commissioner Burack,

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Some thoughts to keep in mind during the drafting of this plan:

- We need an aggressive plan that at the very least aims for 10% reductions in carbon pollutions by 2020
- We can't afford to waste any more time on this - we need actionable and enforceable steps now

Thank you for your attention and please keep up the good work!

Laurie Browinski

Laurie

May 16, 2008

Gregg Browinski
89 Beech Plum Dr.
Manchester, NH 03109

Commissioner Thomas Burack
NH Dept of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Commissioner Burack,

I'm writing as a concerned resident of the Granite State. It has been brought to my attention that you've picked up the reins of helping create a Climate Change Action Plan. I was very glad to hear this because my family has recently been blessed with a 1 year old child so thank you for resurrecting this initiative.

Some thoughts to keep in mind during the drafting of this plan:

- We need an aggressive plan that at the very least aims for 10% reductions in carbon pollutions by 2020
- We can't afford to waste any more time on this - we need actionable and enforceable steps now

Thank you for your attention and please keep up the good work!

Gregg

Gregg Browinski

Dear Commissioner Burack,

I am writing to strongly express my concern over our communities energy consumption. I would like to see legislation that would enforce the reduction of emissions by 10% by 2020. and that will promote alternative energy solutions. I would really like to see more progress toward energy efficiency & conservation, as they are more cost effective than try to burn "clean coal" or turn food into oil. We need a cultural shift that recognizes not just that we need to take care of our planet but changes how we live so we actually are.

Sincerely,

Michelle Daniels
7 Moulton Road
Hampton, NH 03842

5-19-08

Dear Comm. Burack,

I am all for the Climate Change Action Plan and am pleased that it is moving forward. There is much that can be done if people are willing to be educated by the information that is available. People don't like change (old dog, new tricks syndrome). But there are alternatives – wind, the sun, geothermal etc. I expect in time these similar changes will come – but the time needs to be sooner than later!

Sincerely,

Jean Jewett

Dear Commissioner Thomas Burack,

First I wanted to thank you for your commitment to a plan on climate change. I have always been concerned with the environment and the need to make changes to improve the future. I now am expecting my first child and my concern has grown even greater. I feel that now is the time to make an aggressive plan that aims at reducing carbon pollution. I also feel that a stronger look at conservation and energy efficiency is needed. These will yield quicker, more cost efficient results. The state of New Hampshire can not afford to wait any longer. It is not fair to the future citizens of New Hampshire. New Hampshire is my home state and I envision the beauty of New Hampshire lasting for generations of my family to enjoy but only with the effort to make environmental changes.

Thank you for taking the time and allowing me to express my opinion. Thank you again for your efforts on these important issues facing New Hampshire.

Sincerely,

Deanna O'Neil

Deanna O'Neil
Nashua, New Hampshire

Hi my name is Joe McClellan.
I believe we need an agressive plan for
Cleaner water and Cleaner air by the
year 2020.

X [signature]
5-15-08

May 16, 2008

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Drive
Concord, NH 03301

Dear Commissioner Burack,

Thank you for committing to produce a Climate Change Action Plan. We need an aggressive plan that at the very least aims for 10% carbon pollution reductions by 2020. We can't afford to wait another decade to get moving on this, and we have to move quickly to catch up with the other New England states.

We are willing to pay a bit more on electric bills and other energy expenses if it will achieve real carbon reductions soon. Saving energy through efficiency and conservation are much more cost-effective early solutions than burning "clean coal," turning more food into oil or other industry-backed measures.

Sincerely,

Justin and Amy Green
73 Megan Drive
Manchester, NH 03109

May 22, 2008

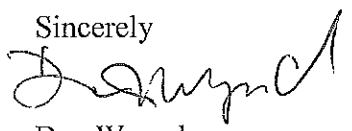
Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Commissioner:

In response to the Climate Change Action Plan, I am writing to urge you to aggressively develop a plan that sets the standard for other states. New Hampshire, given its abundant natural resources and tourism should be at the forefront of the effort. I moved to New Hampshire from Massachusetts because of the tranquil setting the state offers. It would be a shame to see a deterioration to our natural resources, a major source of economic benefits to the state, diminish because of a lack of planning or action. Failure to act will hurt the state in many ways beyond its environmental impact. We can't afford to wait until it is too late.

I understand that conservation and alternative energies to come at a cost to us. I am willing to pay a bit more in electric bills to ensure I leave the state in better shape for the next generation than our fathers did for us.

Sincerely



Dan Wyand

May 28, 2008
Commissioner Thomas Burack
NH Dept of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Governor Lynch,

I've been a huge supporter of you and your policies. I hope you will also consider supporting an aggressive plan to reduce ~~carbon~~ polution by 10% by 2020 at least!

We definitely cannot afford to wait any longer for action on this issue. My wife and I may be gone by 2020, but our grandchildren will still be living in this wonderful state.

I know that it will take financial sacrifices to afford such regulations, but we're definitely willing to shoulder the sacrifices necessary for the real carbon reductions necessary.

As members of the Clamshell Alliance, we are still adamantly opposed to expansion of nuclear power. Imagine the consequences of an earthquake - not beyond the realm of possibilities, as those of us living for over 30 years in the State, remember!

Thank you for your attention to this crucial matter,

Sincerely, Lockwood C. Barr

421 Pleasant St

Portsmouth, NH

Gov. John Lynch
Statehouse
Concord NH 03301

Keri Fitzpatrick
43 Whidden St
Portsmouth NH 03801

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Dr.
Concord NH 03301

Dear Gov. Lynch and Comm. Burack,

I am writing to show my support of The Clean Water Action Campaign. We need an aggressive plan to lower reductions atleast 10% by the year 2020. Saving energy Through efficiency and conservation are much more cost-effective early solutions than trying to burn "clean coal", turn more food into oil or other industry backed measures. We can't afford to wait another decade to get moving on this, We need to move quicker in order to catch up with our neighbors. Thank you for committing to making this a priority and to produce a plan.

Sincerely,

Keri Fitzpatrick

Keri Fitzpatrick

May 28, 2008

Commissioner Thomas Burack
New Hampshire Dept. of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Commissioner Burack,

Please accept this letter as my show of support for the development and, ultimately, implementation of a Climate Change Action Plan for our state. We need an aggressive action plan that aims for at 10% reductions in emissions by 2020. I truly believe that saving energy through efficiency and conservation are the most cost-effective solutions than the misleading concept of burning "clean coal" or turning more food into oil or other industry backed measures.

I am sincerely thankful for your environmental stewardship for our state and will look forward to the development and actions of New Hampshire's initial Climate Change Action Plan. It is essential that we join our fellow states in working toward a cleaner and healthier New England environment. Time is of the essence.

Most sincerely,

Stephanie Ancona
35 South Mill Street.
Portsmouth, NH 03801

May 28, 2008
Commissioner Thomas Burack
NH Dept of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Governor Lynch,

I've been a huge supporter of you and your policies. I hope you will also consider supporting an aggressive plan to reduce ~~carbon~~ polution by 10% by 2020 at least!

We definitely cannot afford to wait any longer for action on this issue. My wife and I may be gone by 2020, but our grandchildren will still be living in this wonderful state.

I know that it will take financial sacrifices to afford such regulations, but we're definitely willing to shoulder the sacrifices necessary for the real carbon reductions necessary.

As members of the Clamshell Alliance, we are still adamantly opposed to expansion of nuclear power. Imagine the consequences of an earthquake - not beyond the realm of possibilities, as those of us living for over 30 years in the State, remember -

Thank you for your attention to this crucial matter,

Ingrid B. Barr

Sincerely, Ingrid B. Barr

421 Pleasant St

Portsmouth, NH

May 29, 2008

Commissioner Thomas Burack
NH DES
29 Hazen Drive
Concord, NH 03301

Dear Commissioner Burack,

Thank you for your commitment to produce a Climate Change Action Plan. I believe this is the most import issue facing our generation. We cannot afford to wait any longer to develop new sources of renewable energy. It is vital to our planet, our economy and our national security that we begin to reduce our dependence upon petroleum immediately.

I believe we have the intelligence, ability, and technology to address our energy needs in New Hampshire with renewable resources. In the Seacoast, we could use the extreme tidal changes in the Piscataqua River to supply power for a large portion of this state. We have the land available for wind farms. We have enough sunshine to support solar systems. A combination of these renewable energy supplies will be more cost-effective than nuclear or coal power stations. The development, installation, and maintenance of these systems would produce green collar support jobs here, in New Hampshire.

We need to build a local, sustainable energy system. But it will not happen without your support. Please produce an aggressive Climate Change Action Plan to force and incent businesses and individuals to reduce carbon pollution within the shortest time span possible.

I was born and raised in New Hampshire and would like to see the quality of our air and water improved in my lifetime. I am a registered New Hampshire voter and am a concerned citizen of the world. I am willing to pay more for energy now to meet our future goals and ensure a viable planet for the next generation.

Sincerely,

Donna Rice

Donna Rice
PO Box 346
Portsmouth, NH 03802-0346

74 Wibird St.
Portsmouth, NH 03801
May 21, 2008

Governor John Lynch
Statehouse
Concord NH 03301

Dear Governor Lynch:

I am writing to voice my strong support for the successful development of a NH Climate Change Action Plan. In a recent speech at UNH, Nobel Prize winner Dr. Berrien Moore presented a frightening picture of how rapidly global warming is taking place, and how little time we have to make the kinds of significant changes that are necessary to address the problem.

I applaud the formation of the state's Climate Change Policy Task Force, and urge policy makers not to shy away from the level of aggressive action that is needed to substantially reduce greenhouse gases. I believe the public is fully aware of the need for real changes in how we live and where we place our priorities. Nothing less than the future of our children and grandchildren is at stake.

Thank you for your leadership on this issue.

Sincerely yours,

B. James

Beverly James

cc: Commissioner Thomas Burack

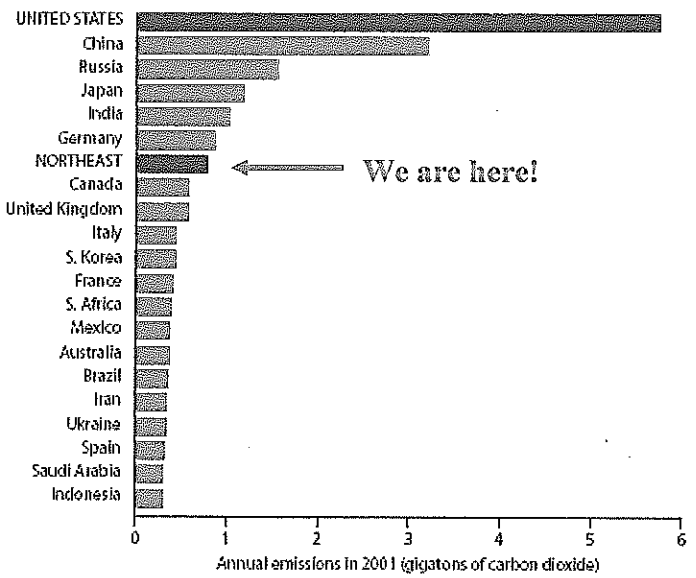
Ellen Marie Douglas, PE, PG, PhD
15 Dwight Avenue
Portsmouth, New Hampshire 03801
603-969-5049
emdouglas@comcast.net

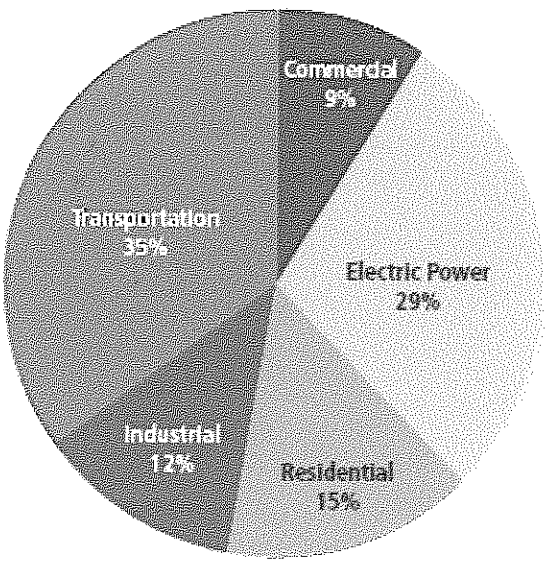
May 20, 2008

Commissioner Thomas Burack
New Hampshire Department of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Commissioner Burack:

First, I want to thank you for creating your Climate Change Policy Task Force. Hopefully it won't be long before New Hampshire can give up its dubious distinction of being the only state in New England without a Climate Change Action plan. Second, I am writing in support of these efforts and urging you to see that a plan is developed and implemented as quickly as possible. We really have no time to waste. According the the Northeast Climate Impacts Assessement (NECIA), a report sponsored by the Union of Concerned Scientists, the Northeast is the seventh largest CO_2 emitter in the world!! The left figure below compares our annual CO_2 emissions with other countries. This means that our actions as a state and as a region can have a huge impact on the global climate and on the quality of life of future generations around the world. Also according to the NECIA report, it will only take a 3% per year reduction in CO_2 emissions to put us on track for meeting the emission reduction goal of 80% below 2000 emissions by mid-century. Being part of the Regional Greenhouse Gas Initiative will help reduce emissions from electric power generation, but the transportation sector has an even bigger impact (right figure below shows CO_2 emssions by sector in the Northeast). We must include a plan to reduce emissions from all sectors.





(Source: Confronting Climate Change in the Northeast: Science, Impacts and Solutions, NECIA, July 2007, available on-line at www.climatechoices.org)

Scientists and politicians have spent the last several decades debating whether or not climate change is real. Today, the debate is over, the evidence is unequivocal…global temperatures are rising, glaciers and ice sheets are melting at alarming rates, sea level rise is accelerating, the climate is changing and we simply have no more time to waste. **The very character of New England is at risk of extinction.** We MUST take action now if we want to stem the tide of detrimental impacts due to climate change by mid-century and beyond. I would like to urge you to consider an aggressive plan that aims to reduce CO_2 emssions by at least 10% by 2020. Energy conservation through increased efficiency offers our greatest hope and makes good economic as well as environmental sense. We must support the development of energy alternatives that make good sense. Corn-based ethanol does not make sense…it is energy inefficient, it damages the environment and it reduces the global food supply at a time when the world can least afford it. Increasing our reliance on nuclear power guarantees waste problems for tens of thousands of years into the future. There is no "one size fits all" solution. Energy efficiency, wind power, solar power, geothermal heat transfer, switch-grass biofuel, these all make sense and we already have the technology to implement these alternatives. What we need more than anything is political and public will to make this happen. An aggressive climate change action plan in the State of New Hampshire will go a long way in setting the standard and stemming the tide.

Thank you for taking the time to consider my request.

Sincerely,

No contact info

Public comment file

NH DEPT OF
ENVIRONMENTAL SERVICES

MAY 27 2008

RECEIVED

May 21, 2008

Dear Commissioner Thomas Burack,

I am writing to you from Portsmouth, NH to request an aggressive plan that aims for a reduction of carbon emissions by at least 10%, but preferably more, by 2020. This issue is at the forefront of my political, social, and philosophical priorities; we cannot afford to wait another decade to initiate the momentum necessary for real change. I am willing to pay more on electric bills and other energy expenses if it means that the state of New Hampshire will achieve the aforementioned carbon emission reduction. Saving energy through efficiency and conservation are much more cost-effective than gimmicks such as "clean coal," or ethanol, which only puts more food in our gas tanks and less in mouths in need. Furthermore, continued or expanded nuclear power is not a viable contribution to reducing global warming pollution and building a sustainable energy system. We need strong, forceful, and courageous action now. Not in two years, not in ten years, not in fifty years, when it will be entirely too late. This is our responsibility to right the wrongs that we have created, to heal the planet that we have tirelessly abused.

Thank you for your time and consideration on this imperative issue.

Sincerely,

Emma Duffy-Comparone

May 22, 2008

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Commissioner:

In response to the Climate Change Action Plan, I am writing to urge you to aggressively develop a plan that sets the standard for other states. New Hampshire, given its abundant natural resources and tourism should be at the forefront of the effort. I moved to New Hampshire from Massachusetts because of the tranquil setting the state offers. It would be a shame to see a deterioration to our natural resources, a major source of economic benefits to the state, diminish because of a lack of planning or action. Failure to act will hurt the state in many ways beyond its environmental impact. We can't afford to wait until it is too late.

I understand that conservation and alternative energies to come at a cost to us. I am willing to pay a bit more in electric bills to ensure I leave the state in better shape for the next generation than our fathers did for us.

Sincerely

Lena Chamberland

Commissioner Thomas Burack -

I would appreciate your consideration on the following areas of the Clean Water Action Act.

Curb Global Warming
Pollution Prevention
Stop Toxic Waste & Trash
Clean & Safe Drinking Water
Voter Education

Sincerely,

2 June 08

To: Commissioner Thomas Burack

Please get moving on the Climate Change Action Plan.

We can't afford to wait another decade on this.

Thanks for committing to produce a plan.

Sincerely, Judy DeFreas
272 Grant Ave
Portsmouth NH
03801

Dear Commissioner Thomas Burack,

It is unacceptable that New Hampshire is the only New England state lacking in anything like the Climate Change Action Plan. Reducing carbon pollution levels back to those of 1990 is surely the least we can do, and just as surely, getting to ten percent below 1990 levels by 2020 should follow. The aforementioned goal(s) is certainly not out of reach for the great state of New Hampshire, nor for its dedicated citizens and officials. Any procrastination could have disastrous results within a much briefer time frame than people may want to believe, and as voters and concerned citizens we are urging that developing the state's Climate Change Action Plan be made a priority.

Let us further express our willingness to pay more on electric bills and other energy expenses if doing so while achieve real carbon reductions. Industry-backed measures like the oxymoronic concept of 'clean coal', the self-defeating process of turning food into oil, and other such specious notions falter in the face of more effective measures like energy efficiency and conservation. Nuclear power, similarly, offers false hope, particularly in consideration of the tremendous risks involved. The Climate Change Action Plan and all the underlying processes comprise an important first step, and hopefully, not the last.

Sincerely,
The Stubble Fields

Commissioner Thomas Burack,

Renewable energy and energy efficient technologies are the key to creating a clean energy future not only to NH and our nation but for the entire world. The more we use renewable energy the more we benefit our environment, strengthen our energy security, create jobs locally, and help improve our economy. NH needs a clear aggressive plan that aims for 10% to 20% reduction in carbon pollution by the year 2020, if not sooner. We rely on our government leaders to draft a Climate Change Action Plan, and to join other NE states in doing all we canto keep our environment bright and clean for the next generations. We cannot continue to use non-renewable fossil fuels that will eventually dwindle and become too expensive and too environmentally damaging to retrieve and use. NH's lakes and forests are a wonderful pleasure now; let's keep them clean for our children and grandchildren.
Thank you for allowing citizen input and for your commitment to produce a clear viable plan by Fall of 2008.

Sincerely,

Carol Alpenovitz
347 Medford St
Manchester, NH 03109

Claretta Malin
3 Barisano Way
Nashua, NH 03063

June 3, 2008

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Drive
Concord, NH 03301

RE: New Hampshire Climate Action Plan Task Force

Dear Governor Lynch,

This evening a Clean Water Action group came to my door asking for my support. I agreed as I have done in the past when this organization has asked for my help. I gave a donation and am writing the letter that was requested.

I would say that I am not politically savvy and I don't know a lot of details about current issues. I am an ordinary, average person trying to take care of my family. I vote and trust that I have made as intelligent a decision as possible with the limited amount of information I have. I trust elected officials to protect public health and our natural resources not only for today but also for future generations.

I thank the State of New Hampshire for agreeing to produce a Climate Change Action Plan. I am concerned that New Hampshire is the only New England state without such a plan. Again, I don't know a lot of details about global warming and the climate changes. I know global warming has been an issue for a very long time and there have been many who questioned the validity of warnings by the scientific community. I believe it's very evident now that around the world global warming has made harmful changes to the climate. It's unfortunate that we humans many times wait to take action until we start feeling the impact of things we've been warned about. The State of New Hampshire must not wait any longer to develop a Climate Change Action Plan. We have a responsibility to future generations.

I don't understand the ways to go about trying to reverse or slow global warming. I do believe that organizations such as Clean Water Action can help find solutions. I believe it would be a good start for New Hampshire to work on the goals set back in 2001 to reduce carbon pollution. I trust politicians to work with the scientific community and citizen action groups to find solutions that will not further harm the environment now or in the future. Cost effective methods are most important as many of us are struggling with the changes in our economy. My husband is 68 with some health problems and I have been a primary care giver for an ill, elderly mother for several years so money is very much a concern for us.

Please take action now. I think of the world our future generations will inherit. I think of the grandchildren and great-grandchildren I hope to have someday. I already love them so much and want their lives to be good. I believe the majority of the public feels the same. Public education for conservation and protection of our natural resources has come a long way in recent years. Society change is critical to sustained, long-term solutions for global warming. Please keep showing us, the public, what we may do to help the earth now and for the future.

Sincerely,

Claretta Malin

Commissioner Thomas Burack

Dear Commissioner,

Water is life. Global warming is debatable, but there is serious evidence that things have changed and the trend is ominous. Please take action in New Hampshire to address the pollution that is the result of carbon emissions. The time is now. We need a sustainable energy system that does not destroy the air and water .

Burt Keirstead and Cheri Valentine

14 Shady Hill Road

Nashua, NH

Commissioner Thomas Burack,

I am writing today to encourage your work for an aggressive energy conservation and development program on behalf of the State of New Hampshire. As you are aware, this incredible state, where we enjoy majestic mountains, deep lakes and a beautiful ocean has the potential to set an example to the nation.

New Hampshire could be "green" in thought and action.

We could commit to an overall energy savings of at least 10% of 1990 by 2020. But we should do better.

Incentives for individuals and business to both create and utilize alternative energy sources is a must, as are educational programs for residents on the effects of pollutants, fertilizers, and chemicals on our water quality.

The state's business community should be publicly encouraged to do its part with such simple things such as incentives to employees who carpool, or work vans from public transportation lots.

New Hampshire State offices could set the standard for "green" by allowing the landscape to yellow from lack of artificial fertilizer, and by using natural mulch such as fall leaves instead of processed mulch that require energy to process and deliver. We could encourage residents and business to participate in the "go green, go yellow" program.

Please, just do something, and do it quickly.

Ella Kruczynska
Nashua New Hampshire

6/5/08

Dear Commissioner Burack,

I want to thank you for providing an opportunity for me to offer my input on NH's Climate Change Action Plan. I feel this is a very important issue and it needs to be addressed sooner rather than later.

I believe that saving energy through efficiency and conservation are much more sensible and cost effective solutions to this problem than trying to burn clean coal, turn more food into oil or other industry-backed measures.

We can also not rely on nuclear power as a viable contribution to reducing global warming pollution and building a sustainable energy system, and we need an aggressive plan that at the very least aims for 10% carbon reduction by 2020.

Thank you for committing to produce a plan.

Sincerely,

Rachel Cochran

Dr. Karen L. Baranowski
3 Chatfield Drive
Nashua, NH 03063
June 5, 2008

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Drive
Concord, NH 03301

Dear Commissioner Burack,

I am pleased to learn that NH is committed to developing an action plan too address climate change. It is hoped that the plan will reduce emissions by at least 10-20% by the year 2020. My husband and I live in an energy efficient home, ration heat, utilize light bulbs requiring less energy, and ration air conditioning to contribute to energy conservation.
NH needs to explore all alternative fuels that will reduce global ozone emissions and the carbon footprint globally, I am willing to pay more for more efficient fuel systems. In addition, I hope NH will provide tax incentives to industries that are working to create alternative fuel systems and address cleaner systems that reduce pollution. We must protect our environment for future generations.

Sincerely,

Dr. Karen L. Baranowski DNSc., RN

June 5, 2008

Dear Commissioner Burack,

I am happy to know that N.H. is developing a NH Climate Action Plan. We need to move quickly to develop a plan that can reduce carbon. This needs to be a plan that meets the needs of people (rather than industry).

Kathleen Willard
Nashua, NH

June 9, 2008

Commissioner Thomas Burack
NHDES
29 Hazen Drive
Concord, NH 03301

Dear Commissioner Burack,

I have just become a member of clean water Action because I believe that positive, aggressive action is needed to protect our environment.

The action we need is not the phony, window-dressing type of items that look good, but accomplish nothing, such as ethanol, which has a disastrous effect on our economy, or cap and trade carbon offsets, which only serve to allow those with money to but credits for conservation work that they did not do.

The action we need is establishment of stringent standards that no one can buy their way out of, a strong effort to explore for and develop other sources of energy, such as wind and solar, and the establishment of more nuclear power generating facilities to meet our rising energy demand.

I hope that you will provide your strongest support to such actions.

Very truly yours,

Frederick C. Rice
Hampton, NH

Commissioner Thomas Burack,

I am writing today to encourage your work for an aggressive energy conservation and development program on behalf of the State of New Hampshire. As you are aware, this incredible state, where we enjoy majestic mountains, deep lakes and a beautiful ocean has the potential to set an example to the nation.

New Hampshire could be "green" in thought and action.

We could commit to an overall energy savings of at least 10% of 1990 by 2020. But we should do better.

Incentives for individuals and business to both create and utilize alternative energy sources is a must, as are educational programs for residents on the effects of pollutants, fertilizers, and chemicals on our water quality.

The state's business community should be publicly encouraged to do its part with such simple things such as incentives to employees who carpool, or work vans from public transportation lots.

New Hampshire State offices could set the standard for "green" by allowing the landscape to yellow from lack of artificial fertilizer, and by using natural mulch such as fall leaves instead of processed mulch that require energy to process and deliver. We could encourage residents and business to participate in the "go green, go yellow" program.

Please, just do something, and do it quickly.

Michelle Mitchell
Nashua New Hampshire

June 11, 2008

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Drive
Concord, NH 03301

Dear Governor Lynch:

I am in support of the "Clean Water Action Campaign". I am willing to pay a bit more on electric bills and other energy expenses if it will achieve real carbon reductions soon. I am in support of an aggressive plan that at the very least will aim for 10% emission reductions by 2020.

I am in dismay that NH is the only state in New England without a plan.

Sincerely,

Diane Withee

Diane Withee
36 Alexander Drive
Hampton, NH 03842

Dear Commissioner Thomas Burack,

New Hampshire is the only state in New England without a Climate Change Action Plan. We need one! One that aims, at the very least, 10% reductions by 2020. We can't wait! Another decade, and it's that much longer to catch up to our New England neighbors. For the most part, my family is willing to pay a little extra on electric bills and the like if it will achieve REAL carbon reductions soon.

Jonathan Allen
26 Spencer Drive
Nashua, NH
03062

Commissioner Thomas Burack,

I am writing today to encourage your work for an aggressive energy conservation and development program on behalf of the State of New Hampshire. As you are aware, this incredible state, where we enjoy majestic mountains, deep lakes and a beautiful ocean has the potential to set an example to the nation.

New Hampshire could be "green" in thought and action.

We could commit to an overall energy savings of at least 10% of 1990 by 2020. But we should do better.

Incentives for individuals and business to both create and utilize alternative energy sources is a must, as are educational programs for residents on the effects of pollutants, fertilizers, and chemicals on our water quality.

The state's business community should be publicly encouraged to do its part with such simple things such as incentives to employees who carpool, or work vans from public transportation lots.

New Hampshire State offices could set the standard for "green" by allowing the landscape to yellow from lack of artificial fertilizer, and by using natural mulch such as fall leaves instead of processed mulch that require energy to process and deliver. We could encourage residents and business to participate in the "go green, go yellow" program.

Please, just do something, and do it quickly.

Leah Kruczynska
Nashua New Hampshire

Dear Commissioner Burack,
We need to implement a Climate change Action Plan. Anything that will make a positive first step will help. Please consider the Plan currently under construction.
Any step to help curb Global Warming, Climate Change will help down the line.
Thank You for committing to produce a plan.
Kathleen A. Houle
Nashua

June 10, 2008

Governor Lynch and
Commissioner Burack –

I support your
Climate Change Action
Plan. Why should we
be the only state in New
England without one.

Sincerely,
Priscilla Weeks

7 Heather Ln.
Hampton, NH 03842

Kristin Benz
37 Barbour Rd.
Hampton, NH 03842
kris.benz@gmail.com

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Dr.
Concord, NH 03301

June 10, 2008

Dear Mr. Burack,

I would like to thank you in advance for committing to produce a plan to prevent global warming, reduce pollution, and protect drinking water in the State of New Hampshire. I am in strong support of the development of a Climate Change Action Plan. I believe we need an aggressive plan that aims for at least 10% reductions by 2020. In addition, I agree saving energy through efficiency and conservation are much more cost-effective early solutions than trying to burn "clean coal", turn more food into oil, or other industry-backed measures.

Again, thank you for your support in helping to care for New Hampshire.

Sincerely,
Kristin Benz
Kristin Benz
Jason Wagg
Devin Wagg

10-08

Dear Commissioner Burack:

Do you think we've had enough? Maybe not till it's really over & too late. What are we going to do? Can we depend on you?

How hard do you want to fight for what's right? We're all taxed enough. Please help us win the fight for humanity - (our children without a voice) - our environment - which may be taken away - all these "gifts" which we take for granted. They may not have a voice (the ones & things we've hurt) but we can change for the better together. Don't be a deaf & blind person anymore. CHANGE THIS!

The elderly, the sky, the oceans, the air all depend on you doing what's right! We could go on & on. Please look at this as the JOB it is.

Sincerely,

Cindi Legacy

June 11, 2008

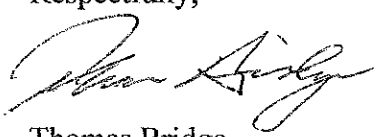
Commissioner Thomas Burack
NH Department of Environmental Services
29 Hazen Drive
Concord, NH 03301

Dear Commissioner Burack,

Thank you very much for making a commitment to produce a plan that will help us to reduce carbon emissions. We desperately need to reverse the energy policies that are leading to global warming. We all shudder when seeing what is happening to the Polar Cap and to the unprecedented weather problems that are afflicting America's Midwest and Southern regions. Please work as soon as possible to catch up with the other New England states.

The citizens of this state are willing to take on the challenge to reduce carbon emissions but the need strong leadership to show the way. As you well know in the successes you have had in your life, positive actions were the catapult to the goal. We must act soon to protect ourselves and our children from the environmental disasters that will occur if global warming is ignored.

Respectfully,



Thomas Bridge
4 Elliott Street
Hampton, NH 03842

June 12, 2008

Dear Gov. John Lynch and Commissioner Tom Burack,

I would like to make some comments on New Hampshire's environmental future. I am glad to hear that you are creating a taskforce to address the issue of climate change; it is a problem that manifests itself in many ways. I want NH to be a leader the nation can look to for ideas and to have the know-how to bring about environmental change. This can only strengthen our economic future, as well as the health of our residents. On the seacoast, where I live, there are untapped opportunities for wind power. I would love to first see windmills in the marshes, on the high school fields and other state properties where there is a constant wind flow. I have heard of wind turbines that Unitel is using in a few areas around here. More ideas like this are of great value while you put together a Climate Change Action Plan.

We are the only state in New England without such a plan, despite our commitment to such in the past. It is imperative to use the opportunities we have now to embrace the inevitable future our country faces: one that is polluted and depends on dirty energy to sustain itself. I want to see carbon reduction goals for the region to get back to 1990 levels by 2010 and to get 10% below 1990 by 2020. The goals may seem out of reach, but they are only so if we let them be. We have to empower ourselves and the people of New Hampshire with the knowledge and incentive for such proposals. I believe it can be made affordable if enough people are willing to pay the upfront costs; in the long run, we will save money and reduce global warming pollution.

Finally, I would like to thank you for all you are doing to protect the environment now (i.e. the sodium level goals set for the expansion of Rt. 93). We are looking to our leaders for answers. Please don't let us down. We need to catch up with our neighbors, learn from them, and move forward. We have the first democratically-controlled state congress in over a century. Take advantage!

Sincerely,

Sherri Basso
64 Esker Rd. Unit 2
Hampton, NH 03842
603-929-9992

SBasso

June 11, 2008

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Drive
Concord, NH 03301

Dear Commissioner Burack, ,

I was just visited by a delightful young man who engaged me in a conversation about clean water and what we need to do to protect it. He talked to me about your commitment for which I thank you. I live near a nuclear power plant and don't believe that continuing to rely on nuclear power is a viable option to reducing global warming. (We are just now talking with our students in science class about global warming and what we can do to harness more resources.

I wholeheartedly support your time, effort and commitment to developing the Climate Change Action Plan.

Thankyou.

Sincerely,

Kathleen A. Ward

Kathleen A. Ward

Ms. Angelus A. White
15 Bradstreet Road
Hampton, NH 03842

June 11, 2008

Dear Commissioner Thomas Burack,

This note is to ask you to support the work of the Clean Water Action group. With your help, the development of the Action Plan will move forward in a well thought-out plan and reach the goal without long delays.

Thank you for your participation.

Sincerely,

Ms. Angelus A. White

Commissioner Tom Burack.

I am writing in support of the Clear Water Action Campaign Focus. I feel you need to take some action in these areas

Curb Global Warming
Pollution Prevention
Stop Toxic Trash
Clean and Safe Drinking Water

Voter Education

I'd appreciate your appreciation and attention

Karen Parker
232 Winnacunnet Rd
Hampton NH.

June 10, 2008

Commissioner Thomas Burack,

I feel that New Hampshire's Climate Change Action Plan is a great start. But the fact that New Hampshire is the only New England state without one is a little disheartening. It's been about 6½ years since the other states governors have committed to a plan. So what about New Hampshire?! We need a plan that aims for a least 10% reductions by 2020, which I don't think is too unrealistic. I believe that New Hampshire cannot wait another year to get started on this, plus we can't let those other New England states out shine us! ☺

I trust in that you and the policy task force will draft a great plan for New Hampshire.

Thank you for your commitment to New Hampshire.

Sincerly,

Cheryl Belliveau

June 12. 2008

Dear Commissioner Burack,

I am so for the clean water action.

We so need to get away from foreign oil. The oil companies are making billions for themselves and people like me and fixed incomes can barely afford the gas.

The forecast is a perfect place for the wind mills.

We have to do something and now!

Sincerely,
Martha Crowley
Hampton, N.H. 03842

June 13, 2008

Commissioner
Thomas Burack
NH Dept. of Environmental Services
29 Hazen Drive
Concord, NH 03301

Dear Sir,

Your job - to provide a policy on Climate Change for our state - is not an easy one. But please know that we support your efforts to do something for our future.

Food sources for fuel does not seem as smart as originally proposed.

We like education (always) about con_ servation.

The Rodan Family
195 N Shore Rd
Hampton, NH 03842-1468

Governor John Lynch
and
Commissioner Thomas Burack,

We are very concerned at the amt of pollution in the water, Business & industry have been allowed to dump their waste, and not assume the full cost of making their product, nor responsibility for the greater public community good. Cancer is now affecting 1 in every 4 americans. We are already paying out the costs and personal suffering on the other end. When will this be recognized & acted on, this is a world community problem.

Paul & Chris Conway
184 Bolton St. Portland Me.
04102

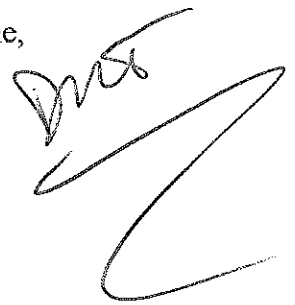
Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Drive
Concord, NH 03301

June 13, 2008

Dear Commissioner Burack,

I am writing to you today to express my support for the Climate Change Action Plan. It is time that NH has a comprehensive plan to do its part in ending global warming. In this era of rising fuel costs it is paramount that this plan addresses cost effective solutions, energy efficiency and conservation.

Thank you for your time,
Dan Twombly
15 Huckleberry Lane
Hampton NH 03842



Commissioner Thomas Burack

NH Dept. of Environmental Services
Concord, NH 03301

NH DEPT OF
ENVIRONMENTAL SERVICES

AUG 20 2008

RECEIVED

June 16, 2008

Dear Commissioner Burack,

I would like to thank you in advance for working on the state's Climate Change Action Plan. I'd like to encourage you to recommit to at least the modest 2020 goal of carbon pollution reduction goal for the region (10% below 1990 by 2020). We cannot afford to wait another decade to get moving on this. Thank you once again.

Sincerely,

Luisito Pineda

Luisito Pineda
Nashua, NH

6-16-08

TO: Commissioner Thomas Burack.

Thank you! for taking the time to Produce a plan for clean water. I just want you to know that I am willing to pay a bit more on Electric bills and other Energy Expenses if it will Achive real carbon Reductions soon!

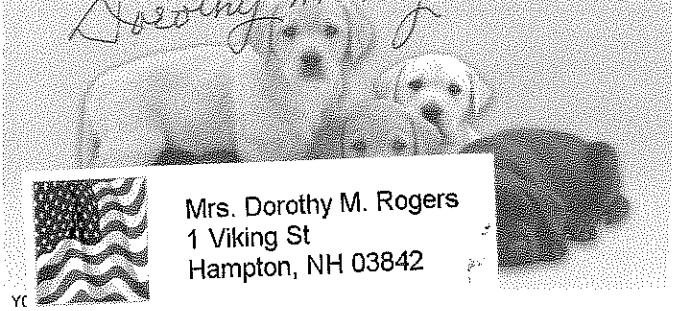
Thank you!

A proud supporter of Guiding Eyes for the Blind

Ms. Dorothy M. Rogers

To Commissioner Thomas Burack,

Please do all you can
To keep our State of
New Hampshire safe
with clean water.
Without your help
everyone in our State
will suffer. We look To
you for help.
Thank you &
God bless you.
Dorothy M. Rogers



Mrs. Dorothy M. Rogers
1 Viking St
Hampton, NH 03842

Commissioner Thomas Burack

NH Dept. of Environmental Services
Concord, NH 03301

NH DEPT OF
ENVIRONMENTAL SERVICES

AUG 20 2008

RECEIVED

June 16, 2008

Dear Commissioner Burack,

I would like to thank you in advance for working on the state's Climate Change Action Plan. I'd like to encourage you to recommit to at least the modest 2020 goal of carbon pollution reduction goal for the region (10% below 1990 by 2020). We cannot afford to wait another decade to get moving on this. Thank you once again.

Sincerely,

Patricia Pineda
Nashua, NH

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Commissioner,
It has come to our attention that the Climate Change Policy Task Force is looking for citizen input. We believe that this is an absolutely critical undertaking, and we wish to thank you for taking this obligation to our environment, our world, seriously.

The plan to reduce New Hampshire's carbon pollution to 10% below 1990 levels by 2020 is aggressive, and some may say it is not possible—that the expense is just too great. I ask you to look at this question inversely: can we really afford *not* to make real improvements in our environment? The alternative to an aggressive plan now is catastrophic cost later in the form of long-term climate change, and I do not need to tell you what that would entail.

We would only imagine that other informed citizens would be as willing as we are to pay extra on electric bills and other energy if it means we can make substantive gains soon. It is our belief that individual conservation will go a long way, as will improved efficiency; however, we feel that these are not permanent measures, and that alternative energy sources that are renewable and economically viable must be pursued in order to avert an environmental disaster.

As your constituents, we respectfully request that you take a close look at all the alternatives in your Action Plan, and make the choices that, while they may seem hard now, will pay dividends to our children.

Sincerely,

Michael Susalka

Caroline Herold

29 Independence Ln.
Manchester, NH 03104

Governor John Lynch
Statehouse
Concord, NH 03301

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Haven Drive
Concord, NH 03301

At last New Hampshire will have a Climate Change Action Plan! We can only hope that our actions will be enough to make a significant difference in the level of carbon pollution in our region.

Saving energy through efficiency and conservation is one way a consumer like me can add to the campaign. However, it is the large corporations who really need to take matters seriously and provide more efficient and conservative plans to reduce pollution in the manufacturing of their products.

We realize that initially we will also have to pay for the new technology to be put in place by fees attached to our utility bills, for instance. However, in the long run we will come out so much farther ahead.

It's about time we join the rest of New England and strive for a cleaner New Hampshire.

Paula L. Fay-Staples
26 Huckleberry Lane
Hampton, NH 03842

Brian Ratay
117 Middle Road, 2nd FL
Portsmouth, NH 03801

Commissioner Thomas Burack
NH Dept. of Environmental Services
29 Hazen Dr.
Concord, NH 03301

Dear Commissioner Burack,

I am writing on behalf of the Clean Water Action Campaign Focus and the need for the administration to develop a clear and specific climate change action plan. My hope is that the money collected by the organization and it's members, as well as, letters like this will impress upon you the significance of this issue and the dedication of it's members.

I would like to see an aggressive plan which seeks to achieve true carbon reductions by a minimum of 10% by 2010. New Hampshire is the only state without a climate control action plan despite its pledge in 2001. This is issue is current and extremely important and I find it shocking that we are currently behind the eight ball. It is up to you to support this issue and take lead on behalf of the citizens of New Hampshire. The administration should be setting an example for the country in a proactive fashion. New Hampshire is known for its beautiful, vast, and varied geography and I would like to pledge my support for any action that seeks to keep it that way in the future. With all the studies and science behind the issue, I find it difficult for anyone to deny the seriousness and timeliness of the issue.

Thank you in advance for attending to this issue and for your representation of the people of New Hampshire.

Sincerely,

Brian Ratay

June 16,2008

Dear Mr. Burack,

I am in support of the Clean Water Action Campaign and truly believe that global warming is a problem that is and will affect us all.

New Hampshire needs a plan and I ask that you will strive to submit one and allow our state to do its part as the rest of New England has already done.

People need to use energy more efficiently and to conserve to the best of their ability.

I respectfully ask you to allow our state to do its part in the preservation of our planet!

Carlene Eneguess

Commissioner Thomas Burack
NH Dept of Environmental Services
29 Hazen Drive
Concord, NH
03301

NH DEPT OF
ENVIRONMENTAL SERVICES
AUG 20 2008
RECEIVED

June 16, 2008

Dear Commissioner,

Thank you for committing to produce a plan for the Clean water action. We need an aggressive plan that at the very least aims for 10% reductions by 2030.

We need to look at nuclear, Solar + wind power for New England. We need to get more nuclear plants online.

Thank you,

Angela Smith
25 Cabot Drive
Nashua, NH
03064

June 16, 2008

Dear Commissioner Thomas Burack,

According the Environmental Protection Agency, drinking water sources for over 110 million Americans are at risk. 20 million acres of wetlands are in jeopardy under the Bush Administration's interpretation of the Clean Water Act.

This is unacceptable.

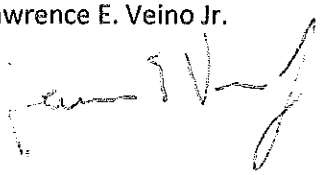
Clean water is vital to not only human health but also to the health of fish, water fowl, and plant-based ecosystems around the country. It is important to protect not just some but all of America's waters.

If you are not already a co-sponsor of the Clean Water Restoration Act (H.R. 2421 and S. 1870) I urge you to become a co-sponsor of this important bill.

If you are already a co-sponsor, thank you. I ask that you work to persuade your colleagues who have not yet signed on to this vital legislation to do so immediately.

Thank you,

Lawrence E. Veino Jr.



Dear Commissioner Burack

Thank you for committing to the NH Climate Change Action Plan. As you know continued or expanded reliance on nuclear power is not a viable contribution to reducing global warming pollution and building a sustainable energy system. New Hampshire needs an aggressive plan that calls for at the very least a 10% reduction by year 2020. New Hampshire residents can't afford to wait another decade to get moving on this, and have to more quickly to catch up to our New England neighbors. I am willing to pay a bit more in my electrical bill and other energy expenses if it will achieve real carbon reductions soon. Saving energy through efficiency and conservation are much more cost-effective early solutions than trying to burn "clean coal," turn food into fuel or other industry backed measures.

Thank you for your efforts!

Respectfully,

Melissa Thresher
Nashua, NH

6/18/08

To Commissioner Thomas Burack:

I am asking for an aggresive plan that reduces emmisions by 10% by 2020. I have more quickly in green technology rebates, and use clean coal, solar, wind and hydropower, (Nuclear Power is not optional for environmental health). We need a plan as soon as possible. Thank You for committing to ensuring a Home for our Children and Grandchildren.

Anita Cala
Cala
15 Taylor St
Nashua, NH

Dear Commissioner Thomas Burack.

I would like to take a few moments to express how important clean water and the Clean Water Act is to me. Clean water is especially important to me because I am pregnant and I believe that the water that I drink and use everyday in my home should be nothing but pure and clean. The water that I am putting into my body does not only affect me but my unborn child. I use a Brita water filter at home to clean impurities out of my water and my animals drink from a carbon filtered drinking fountain. If we could improve the condition of our water supply, we could get the pure water we need without spending the extra money to make sure our water is safe. It would also make the seafood that we eat healthier for us and the next generations to come. Our oceans, rivers, and lakes would all be cleaner and the wildlife that lives in and around those water supplies would thrive. If we start now it would be one step towards a healthier planet. Thank you for your time.

Sincerely,
Carla Disedare

Carla M. Disedare

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Tom Richardson

Date: 9/15/08

Town: Durham

E-mail: UniversityApartments@comcast.net

Topic: Apartment energy conservation

Comment: Need gov. funding or legislation to create "level playing field" for rental property owners.

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: HUNTER D. BROWNLIE

Date: 9/15/08

Town: NEWMARKET

E-mail: HDBROWNLIE@AOL.COM

Topic: RENEWABLE ENERGY

Comment: OUR COMPANY IS OFFERING FINANCIAL WAYS TO HEDGE ENERGY COSTS WITH THE USE OF RENEWABLE ENERGY. I WOULD BE GLAD TO EXPLAIN MORE ABOUT THIS IDEA OR PLEASE GO TO WWW.ECOPOWERHEDGE.COM 603-659-7626

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: JACK CHAMBERS

Date: 9/15/2008

Town: PORTSMOUTH

E-mail: JACKCHAMB@COMCAST.NET

Topic: INCENTIVES

Comment: I AM PLEASED THAT NH AND PORTSMOUTH ARE ACTIVELY ENGAGED IN CLIMATE CHANGE ACTIONS. INCENTIVES TO GET CITIZENS TO INVEST IN ALTERNATIVE ENERGY AND INSULATION WILL BE EFFECTIVE, EVEN IF THEY ARE MODEST. I BELIEVE IT WILL NOT TAKE MUCH TO ENCOURAGE US.

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Judy Miller

Date: 9/15/2008

Town: Portsmouth

E-mail: judymil@comcast.net

Topic: Transportation

Comment: We need mass transportation from Portsmouth to Manchester airport - C+J Trailways or public bus could be implemented fairly quickly

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Wendy Lull

Date: 9-15-08

Town: Rye / Seacoast Sci. Ctr.

E-mail: w.lull@seacentr.org

Topic: public education & awareness

Comment: The Center welcomes the opportunity to host more meetings, listening sessions or other ways to engage people in solving this (these) problems.

There are still people who don't believe people's actions have any impact on the atmosphere/climate!

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Michele Weinsman

Date: 9/15/08

Town: Rye

E-mail: volunteer@seacentr.org

Topic: Seacoast Science Center

Comment: 436-8043 x21

We are willing to be a demonstration site for alternative energy applications including tightening the envelope of the museum (a state building) We have over 60,000 visitors & over 13,000 school groups annually.

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Melissa Aho

Date: 9/15/08

Town: Dover

E-mail: maho@ultrageothermal.com

Topic: Education.

Comment: It would be great if the task force could put together short education programs on what people's options are:

Solar, recycling, energy star insulation, reducing energy consumption and also what we do geothermal we speak at many events and we do it →

On an educational level ... including insulating solar + wind power, what you can do on a small level (car-pool, light bulbs, recycle ...) Of course we do focus on geo and how it works but it is an educational presentation not a sales pitch. I would be happy to speak to you @ one of your meetings if you would like. Melissa Akin 603-868-7878

Department of Environmental Services
Office of the Commissioner
29 Hazen Drive, PO Box 95
Concord, NH 03302-0995

September 20, 2008

Dear Commissioner Burak,

I'm writing to encourage you to do all you can to make our state of New Hampshire green and sustainable. Specifically, we must invest in our future by making prudent and productive investments to reduce energy use and greenhouse gas emissions. We must invest *now* to insure New Hampshire's healthy future.

Energy conservation starts at home. That's here in NH! We must invest in local efforts and lead by example. Our state has an obligation to ensure that local governments have the ability and capacity to solve energy and climate issues with local solutions.

Thank you for your consideration and support of these vital issues and concerns.

Sincerely,

Judith Lindsey

Judith Lindsey
822 North Road
Candia, NH 03034

Commissioner Tom Burack
DES
29 Hazen Dr
Concord NH 03302

Sept 24, 2008

Dear Commissioner Burack,

I'm writing about the proposed NH Climate Action Plan which I strongly support. I was very impressed with the Action Plan when it first came out; so proud of NH to be taking Action to save money and be prepared for future shortages of oil or rising prices. Our University of N.H. is so remarkable in the steps it has taken to reduce carbon footprint/green-house gases.

So I'm disappointed, frustrated and concerned when I hear that the NH Climate Plan and the Task Force are under pressure from the usual powers. Please stand up to them for the future of our state, and us, the citizens, and institute the Action Plan as close to the original as possible. I work for the State of NH as well as live here. Thank You.

Sincerely, Nancy Rideout

Nancy Rideout
6 Bashan Hollow Road
Webster NH 03303

(SORRY I DON'T HAVE A PRINTER :)

Auto Industry Opposes CA LEV For New Hampshire

The Alliance of Automobile Manufacturers – a trade association of ten car and light truck manufacturers including BMW Group, Chrysler LLC, Ford Motor Company, General Motors, Mazda, Mercedes-Benz, Mitsubishi Motors, Porsche, Toyota, and Volkswagen – strongly opposes the adoption of California's Low Emission Vehicle (CA LEV) Program in New Hampshire.

CA LEV is a California program designed by California legislators and regulators . If CA LEV were adopted here, New Hampshire would be ceding its authority to a state that is vastly different and tying itself to all future regulatory changes that California makes.

Divergent market trends, economic drivers, natural resources, and air quality concerns are just some of the things that separate New Hampshire and California. Adoption of CA LEV will lead to repercussions in not only the automobile industry, but in the agriculture, tourism, and forestry, construction, ethanol, and other industries as well.

Here are some specific reasons the Alliance believes CA LEV is the wrong public policy choice for New Hampshire:

Recent Developments

In December, the Energy Independence and Security Act of 2007 (EISA) was signed into law. This legislation's centerpiece was an unprecedented increase in Corporate Average Fuel Economy (CAFE) standards. EISA requires a dramatic 40 percent increase in mileage standards by 2020 - the first major overhaul to CAFE requirements since 1975. It will result in a 30 percent reduction in CO_2 emissions from individual vehicles by 2020. It also presents one of the biggest challenges in the automobile industry's history and will require automakers to continue creating, developing, and introducing cutting-edge fuel efficient vehicles.

Not only will EISA provide significant reductions in CO_2 emissions, it will also reduce our nation's dependence on foreign oil and increase the production of clean and alternative fuels. EISA is estimated to save 18 billion gallons of gasoline per year by 2020, as compared to projected consumption levels - the equivalent of taking 30 million cars off the road. In addition, EISA will reduce oil consumption by 1.1 million barrels a day in 2020 compared to projected consumption levels and require that the United States produce 21 billion gallons of advanced biofuels.

In April 2008, the National Highway Traffic Safety Administration (NHTSA) responded to EISA with its proposal for national fuel economy standards through 2015. This Notice of Proposed Rule Making (NPRM):

- increases fuel economy standards for passenger cars from the current standards of 27.5 mpg to 35.7 mpg
- increases fuel economy standards for light trucks from 23.5 mpg in 2010 to 28.6 mpg
- represents an annual 4.5 percent increase in fuel economy over a 5-year period
- far exceeds the 3.3 percent baseline proposed by Congress in EISA
- already calls for a 25 percent increase in the national fuel economy average

NHTSA's NPRM allows for a fair comparison of the federal and California standards through 2015.

	California Regulations[1]	Federal Regulations[2]
2011*	26.7 mpg	27.8
2012	29.5 mpg	29.2
2013*	29.9 mpg	30.5
2014*	30.4 mpg	31.0
2015*	31.3 mpg	31.6

Combined fuel economy averages for the new light duty vehicle fleet – both passenger cars and light trucks.
**Federal program exceeds California standards*

[1] California Air Resources Board, "Comparison of Greenhouse Gas Reductions for the United States and Canada Under U.S. CAFE Standards and California, An Enhanced Technical Assessment", February 25, 2008 – Table 6: CA CO2-Equivalent Standards and Estimated Fuel Economy in Other States – page 10.
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In 2011, and then again in 2013 – 2015, the combined fuel economy averages for the new light duty vehicle fleet – both passenger cars and light trucks – is higher under the federal proposal than it is under the California standards. The proposed regulations will result in a 521 million metric ton reduction of carbon dioxide emissions, a savings of nearly 55 billion gallons of fuel; and over $100 billion in savings on the cost of fuel over the lifetime of vehicles covered by the regulations. *Any existing comparisons between EISA and CA LEV are null without the inclusion of these figures.*

The 40 percent increase in fuel economy standards by 2020 set by Congress in EISA is just a baseline. EISA calls for NHTSA to set standards through 2020 based on the maximum feasible technology available to auto manufacturers. As previously stated, the initial standards set through 2015 already exceed the anticipated 3.3 percent annual increase proposed by Congress. It is fully expected that the next series of proposed regulations through 2020 will take the federal standard beyond the minimum 35 mpg industry-wide average set by EISA.

California Waiver Status from U.S. EPA

With the federal government's adoption of the Energy Independence and Security Act of 2007, the EPA showed its support for a strong national program by denying California's request for a waiver to implement its own fuel economy regulations (AB 1493) as part of the pre-existing CA LEV standards. This action prohibits California and all other states from implementing CA LEV's proposed fuel economy regulations. While this decision is being appealed by California and several other states, current law does not allow for the implementation of AB 1493.

In the wake of the waiver denial, states that have adopted or plan to adopt the CA LEV program are only adopting a smog and ozone forming emissions program that provides no environmental benefit above and beyond the existing federal program. However, in adopting the CA LEV criteria-forming emissions standards, states are effectively ceding their authority to California regulators.

EISA applies a high standard to all 50 states that is good for both consumers and energy security. The auto industry believes that states can also address the climate change issue – as it relates to the transportation sector – by supplementing the federal government's work through various policies, including incentivizing the purchase and use of alternative fuel and advanced technology vehicles.

Facts About CA LEV

1. **CA LEV will result in product restrictions.**
   Automakers believe a national fuel economy standard is better than California's proposed fuel economy standards because the California program is too aggressive too soon for the time frame automakers need to design and launch our vehicles. The federal program, while significantly challenging, provides the flexibility automakers need to meet its rigorous fuel economy standards across the entire country. The California program requires automakers to achieve its technically infeasible standards individually in each state that implements the program, based on each state's unique sales mix. The only cost-effective way to comply with the California standards is to restrict the sale of specific vehicles. This means limited availability on the light trucks and SUVs that New Hampshire residents favor. In addition, economists have predicted that consumers can expect to see an average increase of at least $3,000 to the cost of new vehicles sold in the state under the CA LEV fuel economy standards.

2. **Significant reductions in vehicle choice will disproportionately impact New Hampshire because of its unique market.**
   New Hampshire car buyers favor light trucks and SUVs, with a sales mix of approximately 53 percent trucks to 47 percent passenger cars. In comparison, California has a sales mix of approximately 49 percent trucks and 51 percent passenger cars. A national standard allows manufacturers to balance New Hampshire's fleet mix, which leans toward trucks, against states with fleet mixes like California, which leans toward passenger cars. The California standards call for each state to conform to California's designated fuel economy averages individually. In order to comply in New Hampshire, automakers will likely rely on product restrictions. This will severely limit the availability of light trucks and SUVs that New Hampshire residents buy.

3. **Hampshire should not cede its regulatory authority to California.**
   As noted above, CA LEV is designed by California legislators and regulators – not New Hampshire policymakers. One state should not cede its authority to another that is so vastly different and thereby tie itself to future regulatory changes made on the other side of the country.

For more information on the industry's opposition to the California Low Emission Vehicle Program, please contact the Alliance's representative in Concord, **Ed Dupont, at 603-228-3322**. Extensive materials are available to support and further explain all the issues outlined in this document.

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NH Dealers Oppose Multi-State Fuel Economy Rules

The New Hampshire Automobile Dealers Association is a state based trade association made up of over 550 businesses, across the spectrum of the motor vehicle industry. We employ over 13,000 citizens and make up ¼ of the states retail sales.

New Hampshire should not adopt the California tailpipe emission standards (Cal-Lev) and TLU Action 1.A.3 of the Draft Action Report for the Climate Change Policy Task Force for the following reasons:

The EPA has denied California's waiver request to establish their own fuel economy/emission laws meaning that adopting the Cal-Lev standard is currently legally forbidden

Strong federal action was taken just last December regarding tailpipe emissions

- CAFE standard increased by 40% to 35 MPG by 2020.
- Proposed Federal rules set more aggressive target dates to achieve Greenhouse Gas (GHG) reductions: Fleets average 27.8 mpg by 2011 and 31.6 by 2015. That's 35.7 mpg for passenger cars in 2015 and 28.6 mpg for light trucks
- This new law will reduce GHG by 30%.
- Tailpipe or mobile CO_2 emissions are already closely regulated on the federal level unlike stationary sources (which is why RGGI was necessary).
- A varied patchwork of state vs. federal regulations is not the most efficient approach to governance and business.
- Cal-Lev is a fleet based standard depending on the numbers of specific types of vehicles sold in that particular state and their tailpipe emissions of CO2. The only way to control CO2 emissions from vehicles is by increasing their fuel efficiency.

NH is already cleaning up its cars

- OBD-II law has only been mandatory for 9 months and already over 60,000 vehicles (8%) have been rejected. Let the OBD-II rules work.
- New cars are clean cars. Each year manufacturers are creating cleaner cars with higher MPG and fuel efficiency.
- Granite State Clean Car Program (stakeholders: NHADA, DES, DOT, AMC, Breathe NH) encourages people to purchase clean cars since 2003.

Fewer consumer choices, increased costs and market uncertainty

- Decreased vehicle choice and increased vehicle costs will harm businesses and residents. This has happened in other states.
- 87% of people who purchased a pick-up truck in 2006 used the truck for hauling and 80% used the truck for towing or trailering.
- NH already sells fewer trucks (53%) than Maine and Vermont (59%), both of which have adopted CAL-LEV.
- Each state will need to determine what vehicles can or can't be sold each year. This will increase budget costs and dramatically affect what dealers can or cannot sell each year or month.

California's standards are all or nothing. Once the unelected board in California makes changes to the current rules, NH must join in regardless of how detrimental to NH.

- Three lawsuits are currently pending regarding California's attempt to adopt CO_2 standards because they affect MPG standards, which are pre-empted by federal law.
- The NH DES admittedly states that adopting CAL-LEV will create an increased work burden and costs at the already stretched state government and regulatory agency level.

9/25/2008

VERMONT LAW SCHOOL

CHELSEA STREET
SOUTH ROYALTON
VERMONT 05068

TEL. 802.831.1000
FAX. 802.763.2663

September 26, 2009

Mr. Christopher Skoglund
Energy and Transportation Analyst
Department of Environmental Services
Post Office Box 95
Concord, New Hampshire 03302

Re: Climate Change Policy Task Force
"Energy Generation and Use" Working Group

Dear Mr. Skoglund:

I am pleased to have the opportunity to provide these comments on the section of the draft Climate Change Action Plan entitled "Energy Generation and Use" (EGU). New Hampshire's energy policies are of the keenest interest to me, inasmuch as I spent nine years working on these issues in New Hampshire state government prior to joining the Institute for Energy and the Environment at Vermont Law School in August.

Governor Lynch, Commissioner Burack, Senator Fuller Clark, Representative Kaen and Representative Harvey deserve the highest praise for their leadership in committing New Hampshire to public policies that meaningfully address climate change. The work of the Task Force, as reflected in the draft reports in circulation, demonstrates that smart people with real expertise and authority are likewise committed to taking practical steps that will have demonstrable effects.

The draft EGU report is a particularly useful outline of initiatives that can quickly achieve buy-in from utilities, environmentalists, consumer advocates and regulators. I respectfully challenge the task force to test the upper limits of what those sectors are willing to undertake in order to confront the greatest policy challenge of our lifetimes.

I. Paradigm Shift?

In particular, the Task Force should at least consider revising EGU Action 1.2 (Energy Efficiency Procurement) to reflect a paradigm shift when it comes to reducing New Hampshire's energy consumption. Since the restructuring of New Hampshire's electric industry in 2001, the mainstay of energy efficiency efforts has been the so-called Core programs offered by electric utilities and funded by the System Benefits Charge (SBC) paid by customers. To a more modest extent, similar ratepayer-funded efforts have been

undertaken in the retail gas sector. As the task force is aware, these utility-provided programs have been very successful.

Nevertheless, the work of the task force provides a fortuitous occasion for New Hampshire to consider alternatives to utility-provided, statewide programs. One obvious alternative is the highly successful approach that has been employed in Vermont, where a freestanding energy efficiency utility is the recipient of all SBC funds and discharges the responsibility to provide energy efficiency programs. This approach would have the salutary effect of eliminating the problem identified in the EGU Action 1.1 (Revenue Decoupling) section of the draft report, which concerns the obvious disincentive investor-owned utilities have to undertake aggressive efforts that would reduce their retail sales. Another idea, consistent with the market-based policies embedded in the Electric Industry Restructuring Act (RSA 347-F), would be to use a bidding process to select one of the incumbent utilities as the designated energy efficiency provider for all of New Hampshire.

By no means should New Hampshire embrace change at that fundamental level without rigorous study to determine its likely effects relative to the status quo. My point is merely that now is a good time to undertake such an inquiry, rather than simply assuming that existing structures, adopted at a time when the promotion of retail competition was the chief policy goal, remain the best choice now that climate change has emerged as the overriding concern for energy policymakers.

II. Energy Efficiency Advisory Council

The advent of an Energy Efficiency Advisory Council (presumably, the Energy Efficiency and Sustainable Energy Board created by House Bill 1561, enacted as Chapter 292 of the 2008 New Hampshire Laws) as contemplated in EGU Action 1.2 means there would be an officially sanctioned forum for providing the electric utilities with public input prior to their annual submission to the Public Utilities Commission (PUC) of their energy efficiency plans for the coming year. As noted during the deliberations on H.B. 1561, this is preferable to the current custom of having the utilities develop annual plans on their own, subject to critique via a necessarily fast-paced contested case before the PUC. But the Task Force should acknowledge that the effect of this reform will be to complicate, rather than simplify, the program planning process for ratepayer-funded efficiency programs.

III. Revenue Decoupling

The draft EGU report begins with an extensive discussion of revenue decoupling, noting that a proceeding to consider this possibility has been pending at the PUC since May 2007. The report identifies the PUC's docket as the appropriate method for implementing such a program for New Hampshire's electric utilities. The task force should consider other implementation strategies, for two reasons.

First, although the PUC has a long tradition of so-called "generic" proceedings, it is not clear that the Administrative Procedure Act (RSA 541-A) authorizes the PUC to adopt generally applicable requirements (as opposed to making decisions applicable to individual utilities or other entities) outside of the rulemaking process. Indeed, invoking the rulemaking process to address revenue decoupling would have the salutary effects of (1) almost certainly placing the question on a faster track than continuing to employ the contested case mechanisms reflected in RSA 541-A:31 and Chapter 200 of the PUC's rules, (2) codifying detailed mechanisms that could be expeditiously applied to individual utilities, possibly by agreement, and (3) involving legislators in this important public policy discussion, via review by the Joint Legislative Committee on Administrative Rules.

An alternative, of course, is legislation instructing the PUC to decouple utility revenues from utility sales, accompanied by an emphatic legislative finding that it is in the public interest to re-couple utility revenues to the achievement of meaningful progress on climate change in their service territories. For the reasons that follow, this would optimally be part of a broader legislative initiative.

IV. Smart Metering and Demand-Side Management

As noted in the draft EGU report, revenue decoupling is merely a "neutral mechanism" designed to assure that utilities are not penalized by efficiency-induced sales reductions. Clearly, affirmative efforts are crucial, the efficiency programs discussed above prominent among them.

Other affirmative efforts are also crucial. In particular, the Task Force should add to its report a discussion of Smart Metering and Demand-Side Management (DSM) initiatives. Without smart metering and rate design that peg customer bills to the incremental cost of the next kilowatt-hour of power to be used, New Hampshire is opting not to avail itself of powerful price signal tools. As the task force is well aware, it is at times of highest demand that utilities are generally forced to turn to the power sources that emit the most greenhouse gases. As has recently been experienced in California, because technology is rapidly advancing there are risks that a utility could bet customer revenues on the wrong kind of smart meter. But this, in itself, is not a reason to eschew such a powerful tool altogether.

V. Carbon Capture and Sequestration

Recently the PUC concluded that it lacked the authority to review the decision by Public Service Company of New Hampshire (PSNH) to invest nearly a half billion dollars on adding new scrubbers to its coal-fired Merrimack Station in Bow to achieve significant reductions of mercury emissions. Under New Hampshire law, this will have the effect of guaranteeing to PSNH the recovery of this sum (as depreciation costs), plus a return on that sum (through the utility's allowed rate of return) from customers. Given the resulting magnitude of recoverable stranded costs in the event PSNH were to close

Merrimack Station, New Hampshire has effectively committed to coal as a key element in its power supply mix for decades to come.

In light of that determination, a responsible course of action is for New Hampshire to consider carbon capture and sequestration (CCS) as a key element of its effort to address the threat of climate change. There appears to be a consensus developing that CCS is best addressed at the national level. To my knowledge, no one has identified New England as a geologically appropriate region for sequestering carbon. But there is no reason why New Hampshire, as the New England state that has arguably committed itself most firmly to a future that includes coal power, should not be in the forefront of efforts to explore both the feasibility and implementation of CCS. For an example of efforts to that end, I invite the Task Force to acquaint itself with the CCS Regulatory Project project being led by Carnegie Mellon University, with the participation of our Institute. *See* <www.ccsreg.org>.

VI. Economic Development

My last suggestion to the Task Force is not to consider the challenge of addressing climate change in a manner that is independent from the workings of the larger economy. As Jane Jacobs pointed out in her 2000 book *The Nature of Economies*, human economic activity and the functioning of the environment according to principles of ecology ultimately converge. Thus, both the economy and the ecology of New Hampshire are most likely to thrive if the state manages to maximize the extent to which it can minimize imports of energy and other resources and then make maximum and diversified use of such resources. For a discussion of import substitution and local ownership as a wealth-maximizing alternative to globalism, *see* Michael H. Shuman, *The Small-Mart Revolution.*

VI. Conclusion

Earlier this month, the California Public Utilities Commission issued a new Energy Efficiency Strategic Plan that embraced three aggressive strategies for reducing California's use of energy:

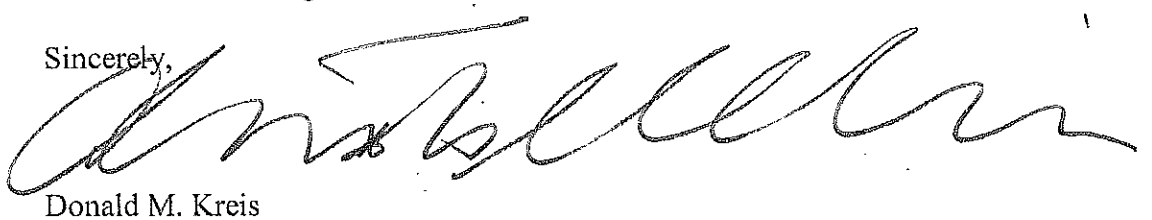
> (1) making all eligible low-income homes energy efficient by 2020,
>
> (2) reconfiguring the heating, ventilation and air conditioning (HVAC) industry (because air conditioning loads account for more than 30 percent of the state's peak summertime demand, and between 30 and 50 percent of new systems are not being properly installed), and
>
> (3) adopting a "zero net energy" standard for new residential construction by 2020 and new commercial construction by 2030.

The "zero net energy" standard, which means that over the course of year a building compliant with the standard contributes at least as much energy to the grid as it takes from the grid, is a particularly noteworthy example of the kind of bold objective that climate change demands. The HVAC initiative is an excellent example of an equally vital flavor of effort – a less flashy, more intensely technical initiative that nevertheless is likely to have a major impact on the state's energy use. Obviously, differences in climate, culture, scale and economy preclude New Hampshire from following California's lead wholesale, but I commend the California report to the task force as an example of the kind of thinking the Task Force should undertake.

As the architect Daniel Hudson Burnham (1846-1912) famously urged: "Make no little plans. They have no magic to stir men's [or women's] blood and probably will not themselves be realized." This spirit, which led to the creation of the Flatiron Building in New York, Union Station in Washington, the World's Columbian Exhibition of 1892 in Chicago, and the rebuilding of Chicago itself after the Great Fire of 1871 under the first comprehensive plan for an American city, is precisely the kind of energy and vision that climate change requires.

Please treat my comments as the result of a non-exhaustive review of the draft report of the EGU Working Group, as opposed to any attempt to replicate or to second-guess the many months of hard work that went into the document. I commend the Task Force for its excellent and diligent work to date.

Sincerely,



Donald M. Kreis
Associate Director and Assistant Professor of Law
Institute for Energy and the Environment
Vermont Law School

dkreis@vermontlaw.edu
802.831.1374 (direct line)

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Susan Wiley

Date: 9/29/08

Town: Sandwich, NH

E-mail: Stephmwv@ncia.net

Topic: Bus service

Comment: We must have bus/public service from manchester airport to Concord or downtown Manchester that is affordable.

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Susan Wiley

Date: 9/29/080

Town: Sandwich, NH

E-mail: stephmwv@ncia.net

Topic: School bus

Comment: How might we encourage highschool students to either ride the bus or go to smaller vehicles and fill them up.

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: LARRY GARLAND

Date: 9/29/08

Town: Jackson resident, Conway session

E-mail:

Topic: TLU Action 2.C.7 p.120

Comment: Open Space Preservation
Local & Regional Land Trusts
can play a vital role.
Open space preservation need not
be government-centric

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Larry Garland

Date: 9/29/08

Town: Jackson resident, Conway Session

E-mail: _____

Topic: TLU Action 2.B.1.c p.68

Comment: Bike-Ped Infrastructure

On-street bicycle infrastructure is not always desirable, even with designated bike lanes. Turning & parking cars are dangerous threats, especially to children & families. Please consider off-street, dedicated bike-ped paths where appropriate - NH may not necessarily be the agency of choice for this.

e.g. Rail-Trail model

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Caitlin Cummings

Date: 9/29/08

Town: Lincoln, NH

E-mail: ccummings@lin-wood.k12.nh.us

Topic: Climate Change

Comment: Schools across the state should be given financial support in the greening of their schools. It helps with district energy costs, saving overall money to be then spent on educational resources. It also educates the next generation & NH residents in the concept of "green" and models the techniques + technologies that we want the next generation to embrace.

The state needs to help schools initiate the greening of their buildings.

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: LARRY GARLAND

Date: 9/29/08

Town: Jackson resident, County session

E-mail:

Topic: Land Use

Comment:

Protection of agricultural soils and farmlands from development/conversion.

Programs to support local farming & food distribution.

Break out Land Use issues from Transportation (separate section).

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Cimbria Badenhausen

Date: 9/29/08

Town: Chocowinity

E-mail: BlueSkyDas@gmail.com

Topic: varies

Comment: • high speed internet developing countries → here can get you information

• wind, etc. Delaware-turbines off shore-providing habitat and power

• partnering w/ citizen groups like one in Plymouth

• connect w/ Scandinavian countries. Can connect you w/ them.

• district heating systems

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: Ray O'Brien

Date: _____

Town: _____

E-mail: o

Topic: _____

Comment: People need data — visual
a picture is worth a thousand words
—
I don't want 1000 words either.

Governor's Climate Change Task Force
Public Listening Session
Comment Card

Name: L. TEAGUE

Date: 9/29/03

Town: N. Conway

E-mail:

Topic: Climate Change

Comment:

Do know one wants to
of course my personal
for you'll future
changes in response
to our energy future
future environment

Nuclear power would
have support and is the
only power alternative
available with low
pollution

The following document contains each of the mail received by the NH Department of Environmental Services (NHDES), between October and December 2008 following the official public listening sessions, pertaining to the Climate Change Policy Task Force and the Climate Change Action Plan. This document was generated directly from each email; no changes were made other than to apply a consistent font and general formatting scheme.

The comments in this document were emailed directly to NHDES and the assertations they contain do represent the position or opinion of the members of the Climate Change Policy Task Force or NHDES.

Where Do CO_2 Emissions Go?

CO_2 emissions only rise into the lower troposphere as very hot combustion by-products.

Once they cool to the ambient N_2 temperature, gravity and geomagnetism begin pushing CO_2 back to earth.

Within 100 hours All CO_2 is back to earth.

The entire surface of the earth is a sink for cool CO_2:

(1) oceans, lakes, swamps, rivers
(2) forests, crop fields, golf courses, lawns
(3) mountains, deserts, beaches
(4) parks, schools, churches, cemeteries

Once returned to earth, cool CO_2 can not be "spilled" upward unless it is Twice As hot As surrounding N_2.

John Firor: Physicist Sounded Alarm on Climate Change

By Patricia Sullivan
Washington Post Staff Writer

John W. Firor, 80, whose clearly stated analysis of the impact of increasing carbon dioxide on the climate sounded an alarm about global warming, died Nov. 5 in Pullman, Wash. He had Alzheimer's disease.

Dr. Firor, who led the National Center for Atmospheric Research in Boulder, Colo., from 1968 to 1980, was skilled at translating scientific research into language that could be understood by the public.

"The problem with global warming is not having a warmer Earth," he told the Los Angeles Times in 1992. "What we need to do is make sure we don't force a climate change that is too fast for natural systems to adapt to."

His 1990 book, "The Changing Atmosphere: A Global Challenge," was translated into nine languages. Although longtime New York Times science writer Malcolm Browne called it "about as agreeable as a dose of ipecac," he also said it was "persuasive because it is based more on evenhanded analysis than on advocacy."

Dr. Firor, trained as a physicist, became an expert in public policy matters and often gave engaging lectures in which he combined anecdotes from the history of science with insights into the problems facing researchers who attempt to alert the public to looming problems.

UNIVERSITY CORP. FOR ATMOSPHERIC RESEARCH

As a physicist and public policy expert, John W. Firor was known for explaining the science of global warming in clear language.

"Why are we resistant to doing what's necessary?" he asked in 1999, then quoted Harlan Cleveland, a former ambassador to NATO, saying this kind of environmental problem would require hundreds of millions of people to do something, or to stop doing something. "The stop doing something seems to be the problem. The general exuberance of modern society does not favor stopping," Dr. Firor concluded.

Born in Athens, Ga., John William Firor interrupted college at the Georgia Institute of Technology to enlist in the Army near the end of World War II. He served at the Los Alamos National Laboratory, work which persuaded him to study physics when his military service was over. He graduated from Georgia Tech, then received a doctorate in physics from the University of Chicago in 1954.

He worked at the Carnegie Institution's Department of Terrestrial Magnetism in Washington in the late 1950s, where he said the policy manual was contained on a 3-inch-by-5-inch card: "1. Don't spend money we don't have, and 2. Don't work with high voltages if you are alone."

He moved in 1961 to Boulder to become director of the High Altitude Observatory, which soon became part of the National Center for Atmospheric Research. He was appointed director of the center in 1968 and executive director in 1974. After he stepped down in 1980, he ran the center's advanced study program.

A 1988 editorial that he wrote in a scientific journal prompted environmentalists, several European governments and a few U.S. legislators to call for a 20 percent reduction in carbon dioxide emissions by the year 2000, a Washington Post article reported in 1990.

"The sooner we get busy trying to slow down our emissions the better we are," Dr. Firor said. "It is going to take decades to get people organized to reduce emissions. To say we can wait a decade before we start may be a perfectly sound calculation, but it is not a good political calculation."

Obituaries

Nov. 15, 2007

"Public Policy and the Airborne Fraction--Guest Editorial," J. Firor (NCAR, POB 3000, Boulder CO 80307), *Climatic Change*, **12**(2), 103-105, Apr. 1988.

The airborne fraction is usually defined as the ratio of the increase in the amount of CO_2 in the atmosphere during some period to the amount of CO_2 emitted to the air by human activity during the same period. Present values are estimated to be 0.35 to 0.55. The airborne fraction can be quite small while appreciable CO_2 emission continues. This suggests that increases in the atmospheric concentration of CO_2 can be brought to near zero without cutting the fossil fuel emission to zero, and CO_2 concentrations could be nearly stabilized with a 50% reduction in fossil fuel use. Negative fossil fuel growth scenarios should be carefully studied by both modelers and policy makers.

Donald Kennedy is the Editor-in-Chief of *Science*.

Year of the Reef

THE CORAL REEFS OF THE WORLD, ON WHICH THE NEWS FOCUS SECTION OF THIS ISSUE OF *Science* concentrates, are important for all sorts of reasons. For many, exploration by diving provides a unique connection with a fascinating natural ecosystem. For scientists, including climate scientists, the health of reefs provides insight into the physical and biological welfare of the oceans as a whole. And for conservation biologists, shallow-water reefs are remarkable-hot spots of biodiversity; those that surround oceanic islands often include a level of specialized endemic species that rivals that on the islands themselves. But the corals of the world are in trouble, and that's why we need the International Year of the Reef (IYOR) in 2008.

There are two problems, both of them serious. The addition of carbon dioxide and other greenhouse gases to the atmosphere has altered both the ocean's temperature and its acidity. Because most shallow-water corals exist near their temperature optimum, some are becoming heat-bleached. The more problematic concomitant of climate change is that when carbon dioxide is absorbed by the oceans, as 30% of global industrial production is, it forms bicarbonate and hydrogen ions, which lower ocean pH and threaten the carbonate structure of the reef with dissolution. Since the industrial revolution, average ocean pH has been reduced by about 0.1 unit, and models predict further loss of 0.3 or 0.4 unit by the end of the century. Thomas Lovejoy, president of the H. John Heinz III Center for Science, Economics, and the Environment, calls it "the single most profound environmental change I've learned about in my entire career." In Australia, which has the best-managed reefs in the world, the Institute of Marine Science conducts continuous monitoring to document these changes.

How does it get there?

If only those were the only problems. In many areas, coral reefs that are unprotected or inadequately protected are being harvested. In Indonesia 10 years ago, the minister of the environment showed me a video taken of poachers applying cyanide to a reef to harvest stunned but living Napoleon wrasse and other delicacies bound for upscale restaurants in Hong Kong and Singapore. Other harvesters are after species of *Corallium*, the beautiful living red or pink corals that are traded globally. Because the United States imports 60% of that commodity, mainly for use as aquarium decorations, we ought to be pushing to have them listed for sanctions.

Given the reasons for caring about coral and the threats to its survival, it's not surprising that a large number of people and organizations are interested in reef protection. The IYOR has gathered interest and support from many of these. SeaWeb, a long-lived and effective conservation group, has a strategy of teaming with fashion editors and journals to remind everyone that coral is "too precious to wear" as jewelry. Although shallow reefs are the central concern, a symposium at next year's annual meeting of the American Association for the Advancement of Science will address the role of deep-sea corals, species that are under threat from disruption by bottom trawling or other harvesting.

Some good things are happening already. The U.S. House of Representatives passed, on 22 October, the Coral Reef Conservation Act (H.R. 1205). A Senate bill is out of committee. Final legislation should include strict provisions regulating coral trade, and scientists should continue to make recommendations, including supporting a listing of corals under the Convention on International Trade in Endangered Species (CITES), denied last year by secret ballot in The Hague. Alas, the next Conference of the Parties to CITES won't happen till 2010.

Scientists meanwhile have some good work to do. Data on monitoring and changes in status, along with modeling predictions of temperature and pH effects, should be brought to governments and the public. The failure to gain a CITES listing through political efforts should be rectified. Finally, the United States could grab the front end of the problem by taking serious steps to mitigate carbon dioxide emissions: the root cause of global warming and the reef problem. Experience suggests that for this, we might have to await an election.

– Donald Kennedy

10.1126/science.1153230

CREDIT: ANDY ARRISON

Observatory | Henry Fountain

NYT 1/29/08

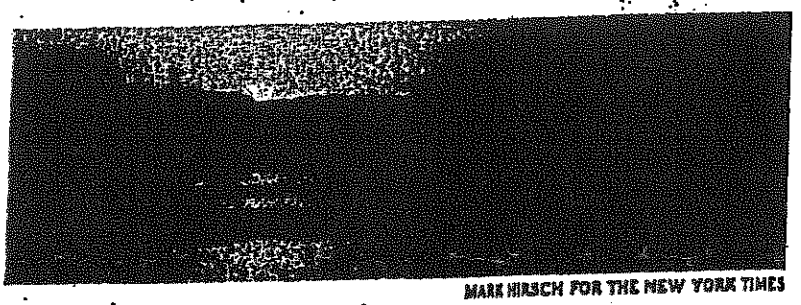
Agricultural Practices Found to Contribute To Bicarbonate in River

The Mississippi may be known informally as the Big Muddy, but it's the Big Bicarbonate, too. It contains a huge amount of dissolved inorganic carbon in the form of bicarbonate, or HCO_3^-, ions, produced by chemical weathering of rock.

In chemical weathering, atmospheric carbon dioxide dissolves in rainwater, creating an acid that reacts with minerals in the rock, forming calcium bicarbonate and other compounds that through the flow of groundwater eventually enter rivers and end up in the ocean. It's an important means by which CO_2 is removed from the atmosphere.

The amount of bicarbonate in the Mississippi has increased substantially in the last 50 years, and the question is why. Peter A. Raymond and Neung-Hwan Oh of Yale and colleagues report in Nature that it's due to agricultural practices more than any increase in precipitation.

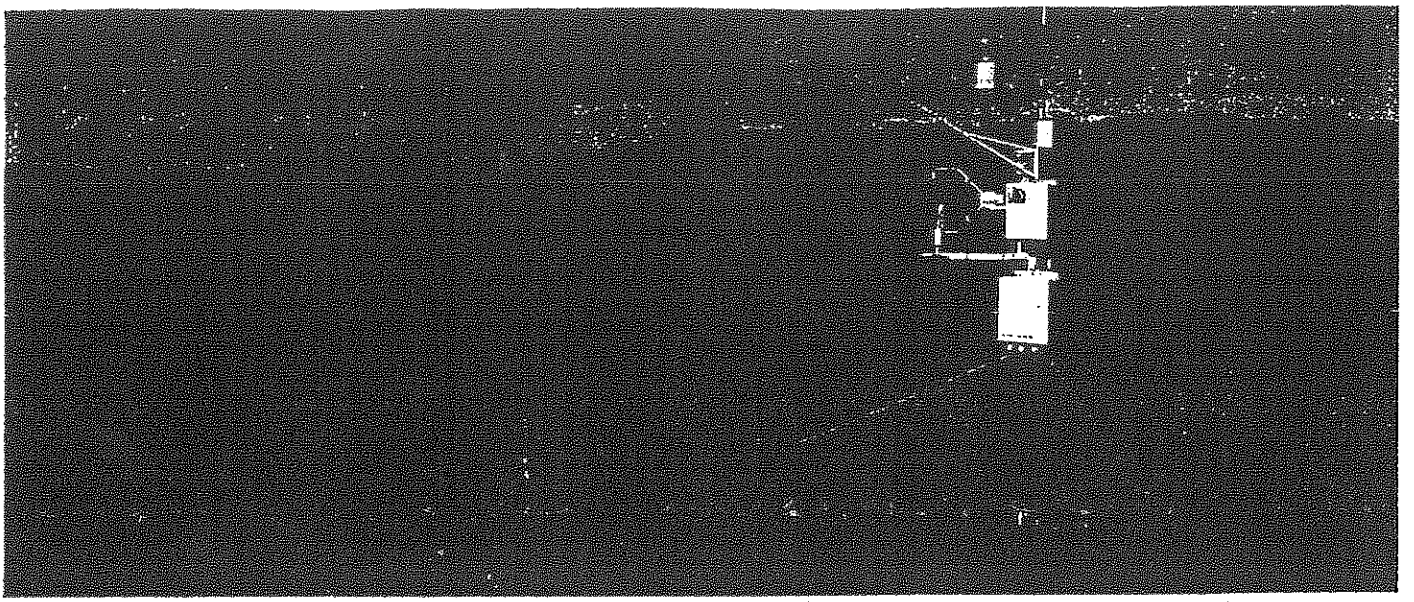
The researchers used a 100-year record of alkalinity (a measure of the bicarbonate concentration) at water-treatment plants in New Orleans, which gets its drinking water from the Mississippi. They analyzed this data along with precipitation data for the region and information on water discharge in parts of the Mississippi watershed.



MARK HIRSCH FOR THE NEW YORK TIMES

The amount of bicarbonate in the Mississippi River has been increasing.

They found that in areas with a high percentage of agricultural land, the water discharge, and the bicarbonate flux, increased even in years of average precipitation. They say that agricultural practices like irrigation, increased use of fertilizer and lime and changes in crop type and rotation may contribute to the increases — by causing more water to flow through mineral-rich soil, where it picks up more bicarbonate on its way to the river.



CREDIT: DESERT RESEARCH INSTITUTE, NEVADA

ECOSYSTEMS

Have Desert Researchers Discovered A Hidden Loop in the Carbon Cycle?

URUMQI, CHINA—When Li Yan began measuring carbon dioxide (CO_2) in western China's Gubantonggut Desert in 2005, he thought his equipment had malfunctioned. Li, a plant ecophysiologist with the Chinese Academy of Sciences' Xinjiang Institute of Ecology and Geography in Urumqi, discovered that his plot was soaking up CO_2 at night. His team ruled out the sparse vegetation as the CO_2 sink. Li came to a surprising conclusion: The alkaline soil of Gubantonggut is socking away large quantities of CO_2 in an inorganic form.

A CO_2-gulping desert in a remote corner of China may not be an isolated phenomenon. Halfway around the world, researchers have found that Nevada's Mojave Desert, square meter for square meter, absorbs about the same amount of CO_2 as some temperate forests. The two sets of findings suggest that deserts are unsung players in the global carbon cycle. "Deserts are a larger sink for carbon dioxide than had previously been assumed," says Lynn Fenstermaker, a remote sensing ecologist at the Desert Research Institute (DRI) in Las Vegas, Nevada, and a co-author of a paper on the Mojave findings published online last April in *Global Change Biology*.

The effect could be huge: About 35% of Earth's land surface, or 5.2 billion hectares, is desert and semiarid ecosystems. If the Mojave readings represent an average CO_2 uptake, then deserts and semiarid regions may be absorbing up to 5.2 billion tons of carbon a year—roughly half the amount emitted globally by burning fossil fuels, says John "Jay" Arnone, an ecologist in DRI's Reno lab and a co-author of the Mojave paper. But others point out that CO_2 fluxes are notoriously difficult to measure and that it is necessary to take readings in other arid and semiarid regions to determine whether the Mojave and Gubantonggut findings are representative or anomalous.

For now, some experts doubt that the world's most barren ecosystems are the long-sought missing carbon sink. "I'd be hugely surprised if this were the missing sink. If deserts are taking up a lot of carbon, it ought to be obvious," says William Schlesinger, a biogeochemist at the Cary Institute of Ecosystem Studies in Millbrook, New York, who in the 1980s was among the first to examine carbon flux in deserts. Nevertheless, he says, both sets of findings are intriguing and "must be followed up."

Scientists have long struggled to balance Earth's carbon books. While atmospheric CO_2 levels are rising rapidly, our planet absorbs more CO_2 than can be accounted for. Researchers have searched high and low for this missing sink. It doesn't appear to be the oceans or forests—although the capacity of boreal forests to absorb CO_2 was long underestimated. Deserts might be the least likely candidate. "You would think that seemingly lifeless places must be carbon neutral, or carbon sources," says Mojave co-author Georg Wohlfahrt, an ecologist at the University of Innsbruck in Austria.

About 20 kilometers north of Urumqi, clusters of shanties are huddled next to fields of hops, cotton, and grapes. Soon after the Communist victory over the Nationalists in 1949, soldiers released from active duty were dispatched across rural China, including vast Xinjiang Province, to farm the land. At the edge of the sprawling "222" soldier farm, which is home to hundreds of families, oasis fields end where the Gubantonggut begins. The Fukang Station of Desert Ecology, which Li directs, is situated at this transition between ecosystems.

In recent years, average precipitation has increased in the Gubantonggut, and the dominant *Tamarix* shrubs are thriving. Li set out to measure the difference in CO_2 absorption between oasis and desert soil. An automated flux chamber measured CO_2 depletion a few centimeters above the soil in 24-hour intervals on select days in the growing season (from May to October) in 2005 and in 2006. The desert readings ranged from 62 to 622 grams of carbon per square meter per year. Li assumed that *Tamarix* and a biotic crust of lichen, moss, and cyanobacteria up to 5 centimeters thick are responsible for part of the uptake. To rule out an organic process in the soil, Li's team put several kilograms in a pressure steam chamber to kill off any life forms and enzymes. CO_2 absorption held steady, according to their report, posted online earlier this year in *Environmental Geology*.

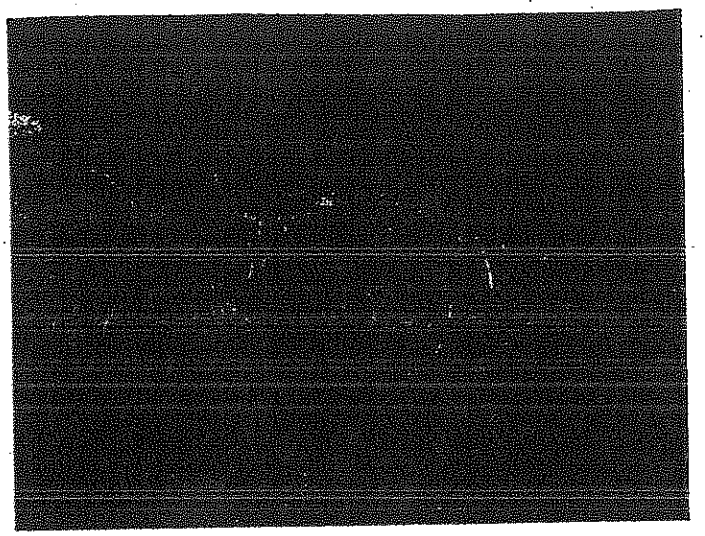
"The sterilization treatment was impressive," says biogeochemist Pieter Tans, a climate change expert with the U.S. National Oceanic and Atmospheric Administration in Boulder, Colorado. "They may have found a significant effect, previously neglected, but I would like to see more evidence." Indeed the high end of the Urumqi CO_2 flux estimates are off the charts. "That's more carbon uptake than our fastest growing southern forests. It's a ▶

over

huge number. I find it extremely hard to believe," says Schlesinger, who nonetheless says the Chinese team's methodology looks sound.

At first, Li was flummoxed. Then, he says, he realized that deserts are "like a dry ocean." The pH of oceans is falling gradually as they absorb CO_2, forming carbonic acid. "I thought, 'Why wouldn't this also happen in the soil?' " Whereas the ocean has a single surface for gas exchange, Li says, soil is a porous medium with a huge reactive surface area. One question, Tans notes, is why the desert soils would remain alkaline as they absorb CO_2. Li suggests that ongoing salinization drives pH in the opposite direction, allowing for continual CO_2 absorption. But where the carbon goes—whether it is stowed largely as calcium carbonate or other salts—is unknown, Li says. Schlesinger too is stumped: "It takes a long time for carbonate to build up in the soil," he says. At the apparent rate of absorption in China, he says, "we'd be up to our ankles in carbon."

One possibility, DRI soil chemist Giles Marion speculates, is that at night, CO_2 reacts with moisture in the soil and perhaps with dew to form carbonic acid, which dissolves calcium carbonate—a reaction that warmer temperatures would drive in reverse, releasing the CO_2 again during the day. (Unlike most minerals, carbonates become more soluble at lower temperatures.) In that case, Marion says, Li's nighttime absorption would tell only half the story: "I would expect that over a year, there would be no significant increase in soil storage due to this process," he says, as the dynamic of carbon sequestration in the soil would vary from season to season. Li agrees that this scenario is plausible but notes that his daytime measurements of CO_2 flux did not negate the nighttime uptake.



Missing sink? *Tamarix* shrubs are thriving in China's Gubantonggut Desert, but the soil itself may be socking away far more CO_2 at night.

In any case, other researchers say, absorption alone cannot explain the substantial uptake in the Mojave. Wohlfahrt and his colleagues measured CO_2 flux above the loamy sands of the Nevada Test Site, where the United States once tested its nuclear arsenal. From March 2005 to February 2007, the desert biome absorbed on average roughly 100 grams of carbon per square meter per year—comparable to temperate forests and grassland ecosystems—the team reported in its *Global Change Biology* paper.

Three processes are probably involved in CO_2 absorption, Wohlfahrt says: biotic crusts, alkaline soils, and expanded shrub cover due to increased average precipitation. "We currently do not have the data to say where exactly the carbon is going," he says. Like the Urumqi team, Wohlfahrt and his colleagues observed CO_2 absorption at night that cannot be attributed to photosynthesis. "I hope we can corroborate the Chinese findings in the Mojave," he says. Arnone and others, however, believe that carbon storage in soil is minimal.

Wohlfahrt suspects biotic crusts play a key role. "People have almost completely neglected what's going on with the crusts," he says. Others are not so sure. "I'm mystified by the Mojave work. There is no way that all the CO_2 absorption observed in these studies is due to biological crusts, as there are not enough of them active long enough to account for such a large sink," says Jayne Belnap of the U.S. Geological Survey's Canyonlands Research Station in Moab, Utah. She and her colleagues have studied carbon uptake in the southern Utah desert, which has similar crust species. "We do not see any such results," she says.

Provided the surprising CO_2 sink in the deserts is not a mirage, it may yet prove ephemeral. "We don't want to say that these ecosystems will continue to gain carbon at this rate forever," Wohlfahrt says. The unexpected CO_2 absorption may be due to a recent uptick in precipitation in many deserts that has fueled a visible surge in vegetation. If average annual rainfall levels in those deserts were to abate, that could release the stored carbon and lead to a more rapid buildup of atmospheric CO_2 and possibly accelerate global warming.

–RICHARD STONE

CARBON DIOXIDE. CO_2, formula weight 44.01, colorless, odorless, nontoxic gas at standard conditions. High concentrations of the gas do cause stupefaction and suffocation because of the displacement of ample oxygen for breathing. Density 1.9769 g/l (0 °C, 760 torr), sp gr 1.53 (air = 1.00), mp −56.6 °C (5.2 atmospheres), solid CO_2 sublimes at −79 °C (760 torr), critical pressure 73 atmospheres, critical temperature 31 °C. Carbon dioxide is soluble in H_2O approximately 1 volume CO_2 in 1 volume H_2O at 15 °C, 760 torr), soluble in alcohol, and is rapidly absorbed by most alkaline solutions. The solubility of CO_2 in H_2O for various pressures and temperatures is given in Table 1.

TABLE 1. SOLUBILITY OF CARBON DIOXIDE IN WATER

Pressure (atmospheres)	Parts (Weight) CO_2 Soluble in 100 Parts Water				
	18 °C	35 °C	50 °C	75 °C	100 °C
25	3.7	2.6	1.9	1.4	1.1
50	6.3	4.4	4.0	2.5	2.0
75	6.7	5.5	4.5	3.4	2.8
100	6.8	5.8	5.1	4.1	3.5
200	—	6.3	5.8	5.3	5.1
300	7.4	—	6.2	5.8	5.7
400	7.8	7.1	6.6	6.3	6.4
700	—	—	7.6	7.4	7.6

Carbon dioxide plays several roles: (1) as a *raw material* for several processes, as in the Solvay process for the manufacture of sodium bicarbonate and sodium carbonate. (2) as a *byproduct* from many processes, notably as a product of combustion of fossil fuels, (3) as an *ingredient* of products, for example, carbonated beverages, (4) as a *product* for direct consumption, for example, CO_2 fire extinguishers and dry ice refrigerants, and (5) as a *pollutant* of the atmosphere. Carbon dioxide is useful in all three of its physical phases-gas, liquid, and solid. Although not toxic, the presence of CO_2 in the atmosphere disturbs the environmental energy balance. The latter aspects of CO_2 are discussed under Climate; and Pollution (Air). Normally, CO_2 is present in the air at sea level to the extent of about 0.05% by weight.

Transportation Uses. Solid carbon dioxide (dry ice) is an effective refrigerant for transportation uses. Refrigeration of moving vehicles may be derived from (1) mechanical systems which, of course, require a continuous input of energy, (2) water ice and ice-salt mixes which require water (often briny) removal, and are corrosive and subject to algae formations, and (3) dry ice, the end-product of which is simply gaseous CO_2, which is easily removed. To maintain a cool temperature in a railroad refrigerator car for a trip between California and New York, about 1,000 pounds (~454 kg) of dry ice would be required. To maintain the same conditions with water ice and salt would require 10,000 pounds of ice.

Specially designed rail cars have replaced on-board diesel-powered refrigeration units, with a CO_2 injection system and ceiling-mounted bunker. These bunkers carry sufficient quantities of dry ice snow to provide sufficient refrigeration for long trips. There are similar applications where perishables are moved by truck. Particularly in truck shipments, CO_2 systems not only refrigerate the cargo, but the inert atmosphere (CO_2 in gaseous phase) retards bacterial growth and thus prevents spoilage. The system is widely used for local route deliveries where frequent and lengthy door openings are needed. Automatic temperature controllers are used. Airlines, hotels, and restaurants keep prepared foods fresh during transport by dispensing CO_2 snow into the bunker portion of customized food service carts.

Fire-Fighting Uses. The fact that CO_2 is heavier than air makes it particularly effective for fighting fires in low places, such as pipe trenches and hard-to-reach low corners and basements, where the CO_2 tends to roll under the air required to maintain combustion. Both manually and automatically controlled CO_2 fire-fighting systems are available. These can be actuated by heat-sensitive systems—just as a conventional water-sprinkling system. CO_2 is effective for fires involving electrical and electronic gear because, if a fire is not fully out-of-hand, the CO_2 often can quickly quench the fire source without leaving any residual damage, as often is the disastrous consequences of using water or sand.

Food Industry Uses. Large quantities of CO_2 are used in food processing, ranging over a wide variety of cooling and freezing operations. A number of freezer designs have been developed, including tunnel, cabinet, spiral, flighted, and drum designs. For example, wide usage of CO_2 in the baking industry includes chilling pneumatically conveyed dry ingredients, such as flour and powdered sugar, to controlling the temperature of dough during the mixing process.

Carbon dioxide is used for carbonating soft drinks. The wine industry also uses CO_2 to add effervescence to sparkling burgundies, rose wines, and some champagne.

The use of CO_2 atmosphere systems in greenhouses has been found to increase plant growth. During winter months, heating costs are markedly reduced and crop yields are increased.

Oil Production Enhancement. For a number of years, depending upon the geopolitics of crude oil production, considerable interest has been shown in the use of carbon dioxide for increasing the recovery of oil from old wells. In the United States alone, it is estimated that there are more than 300 billion barrels of oil left in known formations, which are incapable of recovery through the use of traditional recovery enhancement techniques, such as steam flooding and the use of surfactants. Supercritical fluid carbon dioxide is an impressive solvent for fats and hydrocarbons. The problems of geological formations underground and their varying characteristics (permeability, etc.) present difficulties as with past methods, but it has been established that the dense fluid CO_2 will contribute to recovery wherever it contacts oil. Consequently, some major oil firms already have expended large sums to ready pipelines and other facilities for bringing CO_2 to oil fields as, for example, those in the Permian basin of western Texas and New Mexico. Although carbon dioxide has been a useful material for other purposes, oil recovery usage may require the gas in huge quantities not heretofore contemplated. The target, of course, is to capture the needed CO_2 mainly from wastes to the atmosphere, as from power plants. Although authorities still consider oil recovery as a long-range goal, the short-term pace is affected by the fluctuating price of crude oil on world markets. More detail concerning the use of supercritical CO_2 for this purpose is given in entry on Petroleum.

Sources of Commercial Carbon Dioxide. Although carbon dioxide must be generated on site for some processes, there is a trend toward CO_2 recovery where it is a major reaction byproduct and, in the past, vented to the atmosphere. For example, very large quantities of CO_2 are generated by various fermentation processes and in cement production. If the CO_2 must be removed from stack gases because of pollution control regulations, it is only one more step to purify the gas and sell it, usually in compressed liquid form. There are, of course, several economic tradeoffs that must be considered. Where the gas is recovered, it usually is first absorbed in sodium or potassium carbonate solutions, followed by steam-heating the solutions to free a reasonably pure CO_2. The last step is compression of the gas into steel cylinders. The ethanolamines also are excellent absorbents of CO_2.

Ask a fireman ..

over

Who is double-counting the destination of carbon dioxide emissions?

All Assume Airborne fraction is 50 to 100% for over 10 years
- U.N.
- E.C.
- Gore Congregation

CO_2 emissions can not contribute to global warming unless they are airborne—

NO Airborne fraction has been proven; probably because CO_2 has three physical properties that combine to prevent atmospheric accumulations — weight — solubility - diamagnetic

Oct. 2008

Greenhouse Gases

I Kyoto Gases

Name	Chemical Formula	Portion of Dry Air	Physical Properties of Gases: Weight (Sp. Gr.)	Diamagnetic	Solubility in H_2O
Carbon Dioxide	CO_2	383ppm	1.53	slightly	very
Methane	CH_4	2ppm	.55	very	insoluble
Nitrous Oxide	N_2O	.4ppm	1.53	modestly	slightly
Sulfer Hexafluoride	SF_6	100ppt	5.08	fairly	low
HFC-134a Tetrafluorethane	$F_3HC\text{-}CH_2F$	80ppt	3.58	fairly	low
HFC-23 Trifluoromethane	CHF_3	40ppt	2.43	fairly	low
PFC-14 Carbontetrafluoride	CF_4	40 ppt	3.06	fairly	low

II Other Gases

CFC-12 Clorofluorocarbon	CFC	533ppt	2.30	decidedly	low
HCFC-22 Hydroclorofluorocarbon	HCFC	69ppt	2.33	decidedly	low
Carbon Monoxide	CO	.07ppm	.97	very	insoluble
Nitrogen Dioxide	NO_2	.02ppm	1.60	slightly	slightly
Nitrogen Trifluoride	NF_3	100ppt	2.47	fairly	low
Ozone	O_3	.07ppm	1.67	paramagnetic	insoluble
Ammonia	NH_3	.01ppm	.62	fairly	very
Water Vapor	H_2O	—	.63	decidedly	very

Specific Gravity of Air = 1

(mole weight = 28.75)

specific gravity [MECH] The ratio of the density of a material to the density of some standard material, such as water at a specified temperature, for example, 4°C or 60°F, or (for gases) air at standard conditions of pressure and temperature. Abbrev. fluid sp. gr. Also known as relative density.

Limitations on Atmospheric Accumulations

I Kyoto Gases

Name	Portion of Dry Air	Primary	Secondary	Other
Carbon Dioxide	383 ppm	weight	solubility	diamagnetic
Methane	2 ppm	diamagnetic	—	—
Nitrous Oxide	.4ppm	weight	diamagnetic	solubility
Sulfer Hexafluoride	100 ppt	weight	diamagnetic	—
HFC-134a Tetrafluoroethane	80 ppt	weight	diamagnetic	—
HFC-23 Trifluoromethane	40 ppt	weight	diamagnetic	—
PFC-14 Carbontetrafluoride	40 ppt	weight	diamagnetic	—

II Other Gases

CFC-12 Clorofluorocarbon	533 ppt	weight	diamagnetic	—
HCFC-22 Hydoclorofluorcarbon	69 ppt	weight	diamagnetic	—
Carbon Monoxide	.07 ppm	diamagnetic	weight	—
Nitrogen Dioxide	.02 ppm	weight	diamagnetic	solubility
Nitrogen Trifluoride	100 ppt	weight	diamagnetic	—
Ozone	.07 ppm	weight	paramagnetic	—
Ammonia	.01 ppm	solubility	diamagnetic	—
Water Vapor	—	diamagnetic	solubility	—

THE AUSTRALIAN

July 18, 2008 12:48am AEST

No smoking hot spot

David Evans | July 18, 2008

I DEVOTED six years to carbon accounting, building models for the Australian Greenhouse Office. I am the rocket scientist who wrote the carbon accounting model (FullCAM) that measures Australia's compliance with the Kyoto Protocol, in the land use change and forestry sector.

FullCAM models carbon flows in plants, mulch, debris, soils and agricultural products, using inputs such as climate data, plant physiology and satellite data. I've been following the global warming debate closely for years.

When I started that job in 1999 the evidence that carbon emissions caused global warming seemed pretty good: CO2 is a greenhouse gas, the old ice core data, no other suspects.

The evidence was not conclusive, but why wait until we were certain when it appeared we needed to act quickly? Soon government and the scientific community were working together and lots of science research jobs were created. We scientists had political support, the ear of government, big budgets, and we felt fairly important and useful (well, I did anyway). It was great. We were working to save the planet.

But since 1999 new evidence has seriously weakened the case that carbon emissions are the main cause of global warming, and by 2007 the evidence was pretty conclusive that carbon played only a minor role and was not the main cause of the recent global warming. As Lord Keynes famously said, "When the facts change, I change my mind. What do you do, sir?"

There has not been a public debate about the causes of global warming and most of the public and our decision makers are not aware of the most basic salient facts:

1. The greenhouse signature is missing. We have been looking and measuring for years, and cannot find it.

Each possible cause of global warming has a different pattern of where in the planet the warming occurs first and the most. The signature of an increased greenhouse effect is a hot spot about 10km up in the atmosphere over the tropics. We have been measuring the atmosphere for decades using radiosondes: weather balloons with thermometers that radio back the temperature as the balloon ascends through the atmosphere. They show no hot spot. Whatsoever.

If there is no hot spot then an increased greenhouse effect is not the cause of global warming. So we know for sure that carbon emissions are not a significant cause of the global warming. If we had found the greenhouse signature then I would be an alarmist again.

When the signature was found to be missing in 2007 (after the latest IPCC report), alarmists objected that maybe the readings of the radiosonde thermometers might not be accurate and maybe the hot spot was there but had gone undetected. Yet hundreds of radiosondes have given the same answer, so statistically it is not possible that they missed the hot spot.

Recently the alarmists have suggested we ignore the radiosonde thermometers, but instead take the radiosonde wind measurements, apply a theory about wind shear, and run the results through their computers to estimate the temperatures. They then say that the results show that we cannot rule out the presence of a hot spot. If you believe that you'd believe anything.

2. There is no evidence to support the idea that carbon emissions cause significant global warming. None. There is plenty of evidence that global warming has occurred, and theory suggests that carbon emissions should raise temperatures (though by how much is hotly disputed) but there are no observations by anyone that implicate carbon emissions as a significant cause of the recent global warming.

3. The satellites that measure the world's temperature all say that the warming trend ended in 2001, and that the temperature has dropped about 0.6C in the past year (to the temperature of 1980). Land-based temperature readings are corrupted by the "urban heat island" effect: urban areas encroaching on thermometer stations warm the micro-climate around the thermometer, due to vegetation changes, concrete, cars, houses. Satellite data is the only temperature data we can trust, but it only goes back to 1979. NASA reports only land-based data, and reports a modest warming trend and recent cooling. The other three global temperature records use a mix of satellite and land measurements, or satellite only, and they all show no warming since 2001 and a recent cooling.

4. The new ice cores show that in the past six global warmings over the past half a million years, the temperature rises occurred on average 800 years before the accompanying rise in atmospheric carbon. Which says something important about which was cause and which was effect.

None of these points are controversial. The alarmist scientists agree with them, though they would dispute their relevance.

The last point was known and past dispute by 2003, yet Al Gore made his movie in 2005 and presented the ice cores as the sole reason for believing that carbon emissions cause global warming. In any other political context our cynical and experienced press corps would surely have called this dishonest and widely questioned the politician's assertion.

Until now the global warming debate has merely been an academic matter of little interest. Now that it matters, we should debate the causes of global warming.

So far that debate has just consisted of a simple sleight of hand: show evidence of global warming, and while the audience is stunned at the implications, simply assert that it is due to carbon emissions.

In the minds of the audience, the evidence that global warming has occurred becomes conflated with the alleged cause, and the audience hasn't noticed that the cause was merely asserted, not proved.

If there really was any evidence that carbon emissions caused global warming, don't you think we would have heard all about it ad nauseam by now?

The world has spent $50 billion on global warming since 1990, and we have not found any actual evidence that carbon emissions cause global warming. Evidence consists of observations made by someone at some time that supports the idea that carbon emissions cause global warming. Computer models and theoretical calculations are not evidence, they are just theory.

What is going to happen over the next decade as global temperatures continue not to rise? The Labor Government is about to deliberately wreck the economy in order to reduce carbon emissions. If the reasons later turn out to be bogus, the electorate is not going to re-elect a Labor government for a long time. When it comes to light that the carbon scare was known to be bogus in 2008, the ALP is going to be regarded as criminally negligent or ideologically stupid for not having seen through it. And if the Liberals support the general thrust of their actions, they will be seen likewise.

The onus should be on those who want to change things to provide evidence for why the changes are necessary. The Australian public is eventually going to have to be told the evidence anyway, so it might as well be told before wrecking the economy.

Dr David Evans was a consultant to the Australian Greenhouse Office from 1999 to 2005.

Nationals question science on warming

Matthew Franklin, Chief political correspondent | *July 24, 2008*

CRACKS have appeared in the Nationals' commitment to the implementation of an emissions trading scheme, with a NSW party official demanding a royal commission into the science behind climate change.

And the party's think tank - the Page Research Centre - has convened a roundtable for tomorrow to question the findings of the Inter-governmental Panel on Climate Change, the international grouping of scientists which has concluded the world must reduce its carbon emissions.

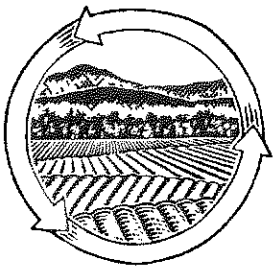
Several of the scientists and economists who will address tomorrow's meeting are widely known climate sceptics.

The Labor Party yesterday seized on news of the forum to accuse the Nationals of "reverting to type" and of having no genuine commitment to reducing carbon emissions. But Nationals leader Warren Truss said he believed in climate change and the need for a properly designed ETS. The roundtable has been organised by Page Research Centre and the chairman of the Nationals' New England federal electorate council, Bryan Pape.

Mr Pape told The Australian he was not convinced about the accuracy of the IPCC's findings and wanted them scrutinised. "I think you want to make sure that you are right," he said.

"Contrary to popular belief and the received wisdom of the Rudd Government, the science underpinning climate change is unsettled.

"There are many eminent scientists who reject the IPCC's conclusion that warming of the climate system is unequivocal."



Resource Management Inc.

Chris Skoglund
Energy and Transportation Analyst
Air Resources Division
NH Department of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

October 24, 2008

RE: Additional Items for Climate Change Task Force Consideration

Dear Mr. Skoglund:

I attended the recent Climate Change Policy Task Force meeting held in Plymouth on October 10th, and on October 15th had the opportunity to listen to Commissioner Burack make a presentation to the Business & industry Association (BIA) regarding the Task Force. Unfortunately I was unable to make it to any of the public input meetings due to conflicts in schedule. However, the recent presentations by Commissioner Burack and your team enabled me to better understand the process to date and the framework of the pending report.

I have a few items for consideration by the Commission and hope that these items could be incorporated into the recommendations of the Commission in the final report due out later this year.

1. AFW Action 1.1 – Build up Soil Carbon

Under this section there are 3 actions specified:

1.11 increase cover crops
1.12 increase conservation tillage/no-till farming practices, and
1.13 protect agricultural land

I believe another action should be added:

1.14 promote reclamation of mined sites, including sand and gravel operations using biogenic waste products, including municipal and paper mill wastewater solids.

Conversion of disturbed excavation sites into either agricultural or silvacultural operations provides a significant benefit to the environment and meets the goals of sequestering carbon in the soils and plants. There are thousands of acres of open sand and gravel pits throughout New Hampshire that can be converted to productive land if there is a cost-effective option

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available to landowners. Use of topsoil manufactured from biogenic waste products such as short paper fiber and biosolids is a long term solution for these sites.

2. AFW Action 2.4 – Encourage the Use of Biogenic Waste Sources for Energy Generation

Under section 2.a. in the Implementation Plan there is a broad reference to "Legislation and policy modifications" but no specific directive relative to the changes needed to encourage development of alternative biogenic fuels.

A very specific action item would be to modify the definition of fuels currently approved for use in facilities under the renewable portfolio standard referenced in Chapter 362-F, to include biogenic sources of fuel such as brown grease, septage, and municipal and paper mill wastewater treatment solids.

The definition of biomass fuel is also used in the Public Utility Commission rule Puc 2502.04 and would also need to be amended.

I am available to discuss these two items in greater detail. Thank you for your consideration of these concepts.

Sincerely,

Shelagh Connelly

Shelagh Connelly
President

Resource Management, Inc. (RMI) is a New Hampshire based recycling company specializing in beneficial use of industrial and municipal by-products including commercial-grade wood ash, biosolids and short paper fiber.

NATIONAL
TRUST
FOR
HISTORIC
PRESERVATION

Northeast
OFFICE

October 31, 2008

Attention: Chris Skoglund
Energy and Transportation Analyst
Air Resources Division
NH Department of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

RE: New Hampshire Climate Change Task Force Report

Dear Mr. Skoglund:

I am writing to you on behalf of the Northeast Office of the National Trust for Historic Preservation regarding the draft New Hampshire Climate Change Task Force Report. Specifically, I'd like to offer our strongest endorsement of two sections, "RCI Action 1.7, Preserve Older Buildings and Neighborhoods as Components of Sustainable Communities," and "RCI Action 1.8, Conserve Embodied Energy in Existing Building Stock" as detailed at http://des.nh.gov/organization/divisions/air/tsb/tps/climate/action_plan/documents/080908residential_action-reports.pdf. The National Trust believes that historic preservation can—and should—be an important component of any effort to promote sustainable development. The conservation and improvement of our existing built resources, including the re-use of historic and older buildings, greening the existing building stock, and reinvestment in older and historic communities, is crucial to combating climate change.

The National Trust for Historic Preservation is a non-profit membership organization that brings people together to protect, enhance and enjoy the places that matter to them. By saving the places where great moments from history—and the important moments of everyday life—took place, the National Trust for Historic Preservation helps revitalize neighborhoods and communities, spark economic development and promote environmental sustainability. With headquarters in Washington, DC, 9 regional and field offices, 29 historic sites, and partner organizations in all 50 states, the National Trust for Historic Preservation provides leadership, education, advocacy and resources to a national network of people, organizations and local communities committed to saving places, connecting us to our history and collectively shaping the future of America's stories.

We would like to commend Governor Lynch and the Climate Change Task Force for tackling the issue of climate change in such a comprehensive way. According to the Pew Center on Climate Change, the operation of buildings accounts for 48% of greenhouse gas emissions in the United States. The environmental impact of buildings is even more significant when we take into consideration the greenhouse gas emissions associated with manufacturing building materials and products. Furthermore, it takes a lot of energy to construct a building. For example, building a 50,000 square foot commercial building

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requires the same amount of energy needed to drive a car 20,000 miles a year for 730 years.

With these statistics in mind, historic preservation is an effective tool for valuing and protecting our environmental resources, including those that have already been expended as well as those not yet used. Because it encourages us to reuse sound older buildings instead of abandoning or demolishing them, and to revitalize existing neighborhoods instead of building sprawling new subdivisions, preservation is "recycling" on a grand scale. In the 1970s and 1980s, the National Trust partnered with the Advisory Council on Historic Preservation and others to help address energy conservation and evaluate the relationship of energy consumption and preservation. The data and methodologies that came out of this research were enormously helpful in assessing the energy conservation benefits of historic preservation. In 2007, we launched a renewal of this work as part of our Sustainability Initiative, which is employing research, outreach, and policy change to help people better understand preservation's value in fostering development that is environmentally, economically and socially sustainable.

The value of including both RCI Action 1.7 and RCI Action 1.8 in the final Climate Change Action Plan cannot be underestimated. As the National Trust for Historic Preservation is finding in the research we are doing as part of our Sustainability Initiative, life cycle analysis, the evaluation of the durability of materials, and the quantification of embodied energy are all critical to making informed and sustainable planning, land use, and building use and reuse decisions. These decisions have direct impacts on climate change as well as economic and environmental sustainability. Furthermore, New Hampshire has positioned itself to be a national leader in developing a thoughtful plan that includes the role of the preservation and reuse of existing building stock. In a state such as New Hampshire that has such a density of older and historic buildings, RCI Actions 1.7 and 1.8 have even more important roles in the state's strategies to combat climate change.

Including both RCI Action 1.7 and RCI Action 1.8 in the Final Climate Change Action Plan is essential to creating a comprehensive and effective state-wide plan that will help protect both the environment and the historic places that make New Hampshire such a special place. If I can be of further assistance, feel free to contact me at (617) 523-0885 or rebecca_williams@nthp.org.

Sincerely,

Rebecca A Williams

Rebecca A. Williams
Field Representative

cc: Patrice Frey, Director of Sustainability Research, National Trust for Historic Preservation
Elizabeth Muzzey, Director, New Hampshire DHR/ NH State Historic Preservation Officer
Jennifer Goodman, Executive Director, New Hampshire Preservation Alliance

October 31, 2008

To the Climate Change Policy Task Force:

Thank you for your serious attention of the many interrelated issues associated with addressing climate change in New Hampshire. We are writing to support the historic preservation concepts embodied in the action items shared by the N.H. Division of Historical Resources in RCI Action 1.7 and 1.8 and share our recommendations for state actions that promote economic and environmental sustainability. Please see our *Green Guidelines* document attached.

The re-use of historic buildings, reinvestment in downtowns and villages, and protection of historic landscapes can -- and should -- be central ingredients in environmental and economic sustainability policies for the state of New Hampshire. This document is a guide for promoting public policies that direct investment toward those goals and strengthen our historic downtowns and town centers, agriculture and forestry, existing housing stock and cultural tourism.

The construction and operation of buildings represent 59% of all fossil fuel use in the state, making them a major contributor to the greenhouse gas emissions driving global warming. We cannot reduce greenhouse gases without addressing the use and construction of buildings.

While the marketplace often urges us to consider new as better, data from the U.S. Energy Information Agency shows that the **only buildings more energy efficient than buildings built before 1920 are those built after 2000.** The majority of these pre-1920 buildings were constructed using repairable and often local materials and were sited and designed to minimize heating and cooling requirements. That doesn't mean that historic buildings are always as energy efficient as they might be; but old buildings can, and should, go green.

Historic preservation practice encourages us to look beyond operating energy to the total energy associated with a building's development. Energy is used to extract and create building materials, transport them, and assemble them into a building. Recent calculations indicate that **it takes about 35-50 years for an energy efficient new building to recover the embodied carbon expended in construction.** Original materials, and existing buildings, contain embodied energy, an environmental asset destroyed by modern replacement.

NEW HAMPSHIRE PRESERVATION ALLIANCE
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We need "green" planning as much as green design. **Investment in older and historic villages and downtowns can reduce demands for transportation, new infrastructure and new building materials**. Compact development and use of existing infrastructure can also help protect important open space, farm land and forest land.

New Hampshire leaders are well positioned to address critical energy and economic issues. New Hampshire legislators advanced several regional, state and locally-focused energy-related initiatives last session. Private and public sector community development programs offer opportunities to direct existing resources to meet critical needs. Citizens are responding to changing energy and economic needs by forming local energy committees and setting new goals.

Thank you again for your work on this important topic, and please contact us with any questions about these recommendations for the Climate Change Action Plan for New Hampshire.

Sincerely,

John Merkle, AIA
Chairman

Jennifer Goodman
Executive Director

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Practical information on a timely issue

Green Guidelines:

Promoting Environmental and Economic Sustainability Through Historic Preservation

For State Policy-Makers

October 2008

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Promoting Environmental and Economic Sustainability
Through Historic Preservation

The re-use of historic buildings, reinvestment in downtowns and villages, and protection of historic landscapes can -- and should -- be central ingredients in environmental and economic sustainability[i] policies for the state of New Hampshire. This document is a guide for promoting public policies that direct investment toward those goals and strengthen our historic downtowns and town centers, agriculture and forestry, existing housing stock and cultural tourism.

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Historic preservation practice encourages us to look beyond operating energy to the total energy associated with a building's development. Energy is used to extract and create building materials, transport them, and assemble them into a building. Recent calculations indicate that **it takes about 35-50 years for an energy efficient new building to recover the embodied carbon expended in construction.**[iv] Original materials, and existing buildings, contain embodied energy, an environmental asset destroyed by modern replacement.

We need "green" planning as much as green design. **Investment in older and historic villages and downtowns can reduce demands for transportation, new infrastructure and new building materials.**[v] Compact development and use of existing infrastructure can also help protect important open space, farm land and forest land.

New Hampshire leaders are well positioned to address critical energy and economic issues. The Governor's Commission on Climate Change has engaged industry, government and other civic leaders on these topics. New Hampshire legislators advanced several regional, state

and locally-focused energy-related initiatives last session. Private and public sector community development programs offer opportunities to direct existing resources to meet critical needs. Citizens are responding to changing energy and economic needs by forming local energy committees and setting new goals.

1. The State Must Lead by Example in Building-Related Investment and Management

State agencies generate important economic activity and major environmental impacts. State agencies must be required to improve sustainable practices in public works investments using principles of RSA 9-B.[vi]

- Each agency's mission statement and policies should include the enhancement of the state's economic and environmental sustainability.
- Agencies should evaluate their rules to determine if they meet these goals, and explore and adopt alternatives as needed.
- Agencies should locate their offices in downtowns and village centers and utilize existing buildings wherever economically practical; and use appropriate advisors and comprehensive evaluations of costs when exploring options.
- In providing grants, technical assistance, education and other assistance, agencies should give priority to projects that strengthen sustainability goals.
- Agencies should support the N.H. Department of Transportation's efforts to encourage the development of context sensitive development that engages communities in planning and implementation that maximizes the protection of historic, cultural and natural resources.
- The Energy Management Unit (suggested by the Governor's Commission on Climate Change) or similar entity must provide education and oversight of Capital Budget requests and other practices.

2. The State Has Opportunities to Advance Environmental and Economic Sustainability in the Promotion and Enhancement of Policies and Programs:

Encourage Investment in Downtowns and Town Centers

Investment in our downtowns and Main Streets can create new jobs, return vacant buildings to the tax base and help avoid costly sprawl. Many existing programs contribute to the environmental and economic sustainability of the state. A few examples:

The ERZ Business Tax Credit helps expand the commercial and industrial base, create new jobs, reduce sprawl and increase tax revenues. The Housing and Conservation Planning Program offers matching grants to municipalities to plan for growth and development in a manner that permits a balanced housing stock

The New Hampshire Community Development Finance Authority supports housing and economic development activities that benefit low and moderate income citizens, and communities across the state, through state tax credits and the Community Development Block Grant Program. The Land and Community Heritage Investment Program serves as a powerful catalyst for saving community landmarks and promoting community development activity.

RSA 79-E, a two-year old tax incentive, promotes strong local economies and smart, sustainable growth. A property owner who wants to substantially rehabilitate a downtown building may apply to the local governing body for a period of temporary property tax relief. The governing body may extend the temporary relief if additional housing and historic preservation goals are met.

- Support these programs, and explore adjustments to priorities or additional incentives to maximize their potential in meeting environmental and economic sustainability goals.

Promote Sustainable Agriculture and Forestry

Historic preservation and land conservation are closely linked. Investing in downtowns can help protect open areas, preserve farmland and prevent forest fragmentation. Open space helps absorb carbon dioxide, and agriculture and forest industries offer sustainable economic opportunities. Even more can be done to harness these connections:

- Create a state food policy that offers incentives to local agriculture and reduces obstacles.
- Continue and enhance support of agri-tourism, NH's Own, and farmer's markets. The markets not only provide venues for retails sales, but can add to the vitality of downtowns and village centers.[vii]
- Explore opportunities with transferable development rights, business development funds in exchange for term easements, expedited site review and other similar tools as incentives to development practices that meet economic and environmental sustainability goals.

Encourage the Use of Older Structures to Create Workforce Housing

Housing and business leaders report that New Hampshire's housing crisis threatens the state's economic growth, the stability of its communities and the health of its family structure. With the increasing gap between high and low wage earners in New Hampshire – and with more and more traditionally middle class jobs falling into the lower end of the wage scale – we have entered a period when increasing numbers of families are either unable to find housing they can afford or are paying unreasonable percentages of their incomes for housing. Businesses have experienced increased difficulty in recruiting and retaining employees because they are unable to find reasonably-priced housing.

Historic buildings often provide housing near the village center and promote a walking community while taking advantage of the water, sewer, roads and existing infrastructure. In addition to increased use and promotion of federal tax incentive programs for housing and the programs mentioned above:

- Advance the adoption of the Existing Building Code. The International Existing Building Code is tailored for old buildings and allows owners and developers more flexibility and lower project costs than the current codes meant for new construction. Civic leaders should join the Greater Manchester Chamber of Commerce, the American Institute of Architects of New Hampshire and others in supporting the work of the N.H. Building

Code Review Board and adopt these revitalization-friendly and safe codes through future state legislation.

- Provide training and incentives for local code officials to create reliable, safe and innovative approaches to achieve the re-use of old buildings, village centers and downtowns
- Adopt incentives to reward communities that provide a full spectrum of housing[viii]

Invest in Cultural and Heritage Tourism

The New Hampshire travel and tourism industry is the state's second largest industry, and traveler spending supports 67,000 direct full-time and part-time jobs. In FY2007, visitor spending topped $4.35 billion and for every dollar spent in promoting tourism by the Division of Travel & Tourism, $8.68 in revenues was returned to the state.[ix] Nationally, the historic and cultural traveler spends an average of $623 compared to $457 for other travelers.[x] A historic/cultural tourist travels to "experience the past through the places and activities that authentically represent the stories and people of the past and present."[xi] This growing segment of the travel market is seeking authentic experiences offered through existing museums, historic sites, natural landscapes and art and craft of local people; these visitors appreciate and respect the distinctive places that we, as residents, also care about.

Policy-makers have set a course for preserving and enhancing its highly significant historic resources with the creation of a new Bureau of Historic Sites at the Department of Resources and Economic Development. Of the state's more than 13 designated historic properties, which include the Wentworth-Coolidge Mansion, Robert Frost Farm, John Wingate Weeks Estate and Tip Top House at the summit of Mount Washington, three are listed National Historic Landmarks. The mission of the Bureau is to preserve, protect and promote all the historic resources under stewardship of the state including those resources yet to be identified within the State Park system.

- Continue to support the Bureau of State Historic Sites at the Department of Resources and Economic Development, and the exploration of new models for the sites' maintenance, management, interpretation and use.
- Expand existing offerings and develop new opportunities, particularly in economically challenged areas of the state through collaborative strategic marketing.

Older buildings and traditional landscapes not only link us to the state's history but also have an integral role in the everyday economy and workforce. Preservation investment and policies associated with existing building, downtowns and village centers, agriculture and forestry, housing and tourism are central features of policies that meet environmental and economic sustainability goals.

***

For more information:
www.nhpreservation.org , www.nhcdfa.org/web/drc_site/drc_overview.html
www.preservationnation.org/issues/sustainability/, www.nh.gov/nhdhr, www.nh.gov/oep, and www.des.nh.gov for Governor's Commission on Climate Change

[i] Environmental Sustainability Historic preservation is an effective tool for valuing and protecting our environmental resources, including those that have already been expended as well as those not yet used. Because it encourages us to reuse sound older buildings instead of abandoning or demolishing them, and to direct development into already-developed areas instead of sprawling into open land, farm land and forest land, preservation is "recycling" on a grand scale. Economic Sustainability An economic system is not sustainable unless it respects the limits of the ecosystems on which it depends. By advocating wise stewardship of existing resources and judicious development and use of new ones, historic preservation advances this goal. Labor-intensive rehabilitation creates more jobs, and keeps more money circulating locally, than new construction. Revitalizing communities helps prevent expensive sprawl.

[ii] U.S. Energy Information Agency. Emissions of Greenhouse Gases Report. www.eia.doe.gov/aiaf/1605/ggrpt for national data; Jordan Institute, www.thejordaninstitute.org for NH data.

[iii] U.S. Energy Information Agency. Consumption of Gross Energy Intensity for Sum of Major Fuels for Non Mall Buildings. 2003.

[iv] Building and Social Housing Foundation and Empty Homes Agency, *New Tricks with Old Bricks.* www.emptyhomes.com/documents/publications/reports.

[v] The costs of sprawl include higher per capita expenditures for municipal services and lost or stranded investment when school and municipal facilities are relocated to mere distant sites – all resulting in higher taxes. Other costs include loss of green space… as well as the undermining of existing town and city centers. *Achieving Smart Growth in NH.* Office of State Planning April 2003.

[vi] From RSA 9B: A coordinated and comprehensive planning effort by state agencies on future development in the state is needed, which will not only improve our economy, but also encourages smart growth by locating development in appropriate growth areas and thus retaining as much open space land as possible for the long-term. Effective August 20, 2000.

[vii] The agricultural industry is in the advantageous position of having both pent-up demand and the ability to charge premium prices. The marketing challenge is not to stimulate interest or promote value, but to increase awareness and access. Rumbletree Incorporated, *Marketing and Research Recommendations* for N.H. Department of Agriculture, 2003

[viii] Give priority in the allocation of state benefits to communities who are addressing the housing challenge rather than deferring it for the next generation to address.

[ix] L.E. Goss. N.H. Fiscal Year 2007 Tourism Satellite Account, Institute of N.H. Studies.

[x] Travel Industry Association.

[xi]Cheryl M. Hargrove. "Heritage Tourism, *CRM* (2002): 10.

We appreciate contributions for the production of *Green Guidelines* from numerous individuals and representatives of National Trust for Historic Preservation, N.H. Division of Historical Resources, N.H. Downtown Resource Center, The Jordan Institute, Society for the Protection of New Hampshire Forests and University of New Hampshire Cooperative Extension.

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Finegold Alexander +Associates, Inc.
and other donors

Please contact the Preservation Alliance with your questions and suggestions regarding this document, or preservation activities across the state, at jg@nhpreservation.org or the address below.

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386 Route 123 South
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Mr. Chris Skoglund
NH Department of Environmental Services
29 Hazen Drive/P. O. Box 95
Concord, NH 03302-0095

Dear Chris:

After the most recent meeting of the Governor's Energy task Force, you noted that the public had a chance to add any comments for inclusion in it.

As you are aware, I have had a few comments, but will repeat them here so as to have no uncertainty about my interest in having them included. There are many, but I will stress the two most important ones.

First and foremost, I urge that the very first sentence of the report be more or less as follows. "Given the uncertain state of the meteorological science of climate change, the very clear lack of any weather data to support an obvious warming of our climate, and the total lack of demonstrable skill in the forecasts of future climate changes, this report should be taken as merely a summary of possible steps to be taken in the event that future weather data indicate that continuing man-made increases in carbon dioxide levels actually cause global warming".

As a second note, flicking off the contribution to be made by nuclear power as a replacement for fossil fuels, especially in combination with automobile battery technology, reflects a gross misunderstanding of the relative contributions of the various possible "solutions" to any future warming.

If you feel that any additional explanation of these ideas is desirable, please let me know, I would be only to happy to elaborate.

Sincerely,

Dr. Fred Ward

Part 2

Emailed Public Comments
To the Climate Change Policy Task Force

Received

February 2008 – December 2008

Hi Chris and Joanne,
Here is a link that shows economic impact of broadband. This may be another consideration as you work on the Climate Change Action Plan.

http://www.computerworld.com.au/index.php/id;18916991

Best,

Mary Boyle and Bill Cable
--
510 Saint-Gaudens Road
Cornish NH 03745

603.675.2218 home
603.252.7898 mobile

Study: More US broadband has $134 billion economic impact
An increase of 7 percent broadband adoption would mean $134 billion for the US economy, a study says.
Grant Gross (IDG News Service) 22/02/2008 08:04:49
http://www.computerworld.com.au/index.php/id;18916991

A modest increase in U.S. broadband adoption would have an annual economic impact of US$134 billion, according to a study released Thursday.
A 7 percent increase in broadband adoption would create 2.4 million jobs across the U.S., would save $662 million in health-care costs and $6.4 billion in vehicle mileage, among other savings, according to the study, released by Connected Nation, a nonprofit group focused on improving broadband adoption across the U.S.

A broadband stimulus package would pump nearly as much money into the U.S. economy as an economic stimulus package recently passed by the U.S. Congress, said Brian Mefford, Connected Nation's CEO. A proposal being considered as part of a farm bill before Congress would allow immediate depreciation for investment in broadband infrastructure and "provide a jolt to the nation's economy in the near term," Mefford said.

Some lawmakers and conservative think tanks have opposed calls to create a wide-ranging national broadband policy, Mefford said. However, the Connected Nation model, patterned after a program in Kentucky, focuses more on broadband adoption and local needs than huge, government-funded programs, he said. "It's a consensus-type approach," Mefford said.
The ConnectKentucky model that spawned Connected Nation is "bringing in jobs," said Mark McElroy, Connected Nation's chief operating officer and senior vice president for communications. Through ConnectKentucky, the state has adopted broadband 7 percent faster than it would have without the program, according to the organization.

The Connected Nation study estimates the U.S. would gain $92 billion in new wages from the 2.4 million jobs created through broadband growth. Using broadband for health-care services has saved an average of more than $200 per person per year in Kentucky, and residents there drove more than 100 fewer hours per month because of transactions done online, according to the study. In addition to the health-care and mileage savings, U.S. residents would save 3.8 billion hours a year by conducting transactions online, at a cost-savings of $35.2 billion, according to the study.
Kentucky was one of the lowest states in the nation for broadband adoption when ConnectKentucky began in 2002, Mefford said. In January 2004, only 60 percent of Kentucky residents had access to broadband; at the end of 2007, 95 percent did, according to the study.

Several Kentucky businesses have benefited from the increased access, according to Connected Nation. Geek Squad, the Best Buy subsidiary, moved its headquarters to Bullitt County, Kentucky, in late 2006 because of the broadband availability, according to Connected Nation.
The U.S. government should focus on public-private partnerships to extend broadband to the remaining areas that do not have it, many of them being low-population rural areas, Mefford said. "These remaining areas are extremely difficult to reach."

Three bills now in Congress, the Connect the Nation Act, the Broadband Data Improvement Act and the Broadband Census of America Act, would replicate parts of the ConnectKentucky model on a national scale.

Not everyone is a fan of ConnectKentucky, however. Public Knowledge, a digital rights group, has raised concerns that ConnectKentucky is "nothing more than a sales force and front group"

for telecom provider AT&T, said the group's communications director, Art Brodsky, in a January blog post. Officials that set up ConnectKentucky "ignored municipal utilities, competitive telephone companies and Internet service providers," Brodsky wrote.

Connected Nation has denied that it's a front for AT&T, saying the company has provided less that 1 percent of the organization's revenues.

Connected Nation's focus is on increasing broadband adoption, not on who provides the broadband, Mefford said Thursday. "This is not a 'Field of Dreams' kind proposition," he said. "You don't just string wires or create wireless footprints and think that economies are going to magically turn themselves around. The impact does not occur until we have people using the technology."

Hello,

Here is the testimony you requested. I attached it and embedded it, in case you have any difficulty opening the attachment.

Please call or e-mail if we can provide any further information.

Sincerely,

Tess George
UU Action Network of NH

Testimony to Climate Change Policy Task Force
February 19, 2008

I am speaking today as a member of the Unitarian Universalist Action Network of New Hampshire, which represents all the UU congregations of New Hampshire. At both the state and local levels, Unitarian Universalists are committed to preserving the interdependent web of existence of which we are all a part. Our statement of conscience on the issue of climate change, which was passed in 2006 states that global warming is not only a matter of science and policy, but it also a matter of faith and justice. We are grateful for the scientific work that has alerted us to the dangers of the earth's warming. We hope to prevent the suffering that will be caused as a result of melting icecaps, higher sea levels, more and stronger storms, and higher temperatures. As a result of human activities, especially our carbon emissions, significant and possibly irreversible climate changes will take place in New England and throughout the world. In this very small window of time, we have the ability to make changes to forestall and possibly reverse some of the changes.

In our churches, we have instituted a program called "Green Sanctuary." We examine the way we live as a congregation and as individual members. We look at our transportation habits, our energy consumption, recycling and even our consumer habits, all in order to reduce global warming. We do this because it makes sense and because we respect our connection to each other and our world. This is a part of our faith. However, we know that the steps we take as congregations and as individuals are not enough.

That is why our statement of conscience, ratified by our national association advocates for laws that reduce greenhouse gas emissions and increase forestation, among other policies.
The Unitarian Universalists of New Hampshire call on the legislators of New Hampshire and on this committee to carefully consider its options and to take the most aggressive steps possible to preserve our sacred trust.

Adrian George
18 Shingle Mill Drive
Nashua, NH 03062
603-881-9130

Chris,

Thank-you so much for your email and invitation to submit comments to members of the Climate Change Policy Task Force. Please pass these comments along to them.

Members of the Climate Change Policy Task Force,

Thank-you for this opportunity to address you through this marvelous internet technology. I address you as a Scientist who has ardently developed knowledge of natural phenomena with the principles and empirical processes of discovery and demonstration. Persistent in my worldwide alert for new knowledge, I closely observe and sagaciously evaluate current trends and conditions and have developed faculties of discernment for what is true, right and lasting.
As a technologist, I advocate the application of modern science to rapidly develop and implement sustainable technologies to enhance the quality of living and solve a host of problems and dilemmas facing humanity today. In December of last year, I submitted to you a document describing the fundamental principles and advantages of a Priority Power Distribution (PPD) system to enhance the efficient use of electricity in homes and small businesses in New Hampshire.

As an environmentalist, I work toward protecting the natural environment from destruction or pollution, since the environment is the primary influence on intellectual growth and cultural development. I understand the cause and impacts of global warming and fossil fuel resource depletion.

As a preservationist, I advocate the protection of life from injury, peril or harm, the controlled use and systematic protection of natural resources, the maintenance of abstract knowledge and important skills.

As a humanitarian I advocate the sole moral obligation of humankind is the improvement of human welfare. I adhere to the tenet that all humans are created equal and have natural and unalienable rights to life, liberty, the pursuit of happiness, security of the person and his private property, together with the right to defend them in the best manner they can.
First and foremost, I address you as a future citizen of New Hampshire. I am attracted to this state for your long tradition of self-sufficiency. My desire is to become a member of a self-sufficient New Hampshire community - a cooperative and autonomous association of people (men and women) living in the same locality, united voluntarily to meet their common economic, social and cultural needs and aspirations based on the ethical values of honesty, openness, self-help, self-responsibility, social responsibility and caring for others, democracy, equality, equity and solidarity. My goal is to be an active participant in a collective of creative, productive minds each with unique talents where innovation is encouraged, property and the individual rights of others, is respected.

My important message demands your immediate attention. The 21st century ushered in a new era of declines in a number of crucial areas:

- Global oil, natural gas and coal extraction
- Availability of fresh water
- Yearly grain harvests
- Economic growth
- Extraction rates for minerals and ores
- Climate stability

New Hampshire is occupant of a fragile planetary ecosystem that is showing severe signs of strain from expanding global population and the ideal of continuously increasing fossil fuels consumption that is adding to the problem of global warming. New Hampshire's demand for electricity is growing at a rate of 1.2% will increase electricity demand to more than 5,647 Gigawatt hours (GWh) by 2025. The mix of new generation will largely consist of coal, petroleum and natural gas, will add to the intensity of GHG emissions. With greater than 587 thousand customers, the residential sector was the greatest consumer of electricity in 2006, 4,400 GWh, with 40% of market share. The demand for electricity to power appliances is projected to increase rapidly. Electricity consumption for home electronics, particularly for color TVs and computer equipment, is also forecast to grow significantly over the next two decades. The Energy Information Administration (EIA) projects electricity consumption to grow 3.5% annually for color TVs and computer equipment through 2025, to more than double the level of consumption in 2003. There is an urgent need for a GHG emissions management framework complemented by enhanced energy efficiency efforts, since slowing energy demand growth is essential to emissions intensity improvements.

We will soon experience environmental and oil resource instabilities causing multiple synergistic problems, perhaps occurring simultaneously. We can expect a range of local interruptions, to epochal scale failures in the central technological services that we have come to rely on for our daily sustenance and commerce. The consequences will be felt by each of us in varying degrees and circumstances. However the impacts and effects of these natural and technological crises will have on New Hampshire can be reduced. Citizens of New Hampshire must first consciously choose between exploitation or stewardship; devastation or sustainability. Future survival depends on how well we accept and adapt to current trends and conditions, take the initial steps to proactively prepare for plausible technological interruptions, and adopt the ideals of voluntary reduction of consumption and self-sufficiency.

In order to seriously address the challenges of energy production, conservation, and self-sufficiency, we need to begin to appreciate electricity as a commodity – similar, in this respect, to petroleum, coal, or natural gas. To appreciate electricity as a commodity, we must have a clear sense of how it is used and how it can be conserved. This means understanding the quality and amounts in which it must be supplied to our homes and businesses.

A Priority Power Distribution (PPD) system seriously addresses the challenges of energy production, conservation and self-sufficiency, and help consumers appreciate electricity as a commodity. A PPD system interfaces with the communicating duplex receptacle (CDR) at the point where electricity is consumed, supported by user friendly supervisory software which collaborates with utilities' existing, and future, demand side management (DSM) technologies with the means to limit maximum current (MC) draw, shed loads during peak periods and reduce total purchased energy costs.

Our PPD system and CDR peripheral is sustainable technology that has reached the demonstration phases of the innovation chain where the development of a bench scale prototype and full-scale demonstration must be completed to prove system capability that will lead to the phases of technologic viability and market relevance. This development work, performed through the University of New Hampshire, Durham, Computer and Electrical Engineering Department.

Members of the Climate Change Policy Task Force, with your support, every new housing unit with our PPD Basic Package installed could save about 25% in their annual electricity consumption. In 2007, the average New Hampshire residence is estimated to consume 7,408

kWh of electricity. With a PPD Basic Package installed, a household could reduce its consumption and maintain it at a constant 5,556 kWh (a 25% reduction) for years to come. At current rates of above 13 cents per kWh, a household could save $257 in electrical energy costs in the first year. Without adjustments for inflation, average delivered electricity prices are projected to reach 16 cents per kWh in 2025. By 2025 a single household will be saving $397 per year and have accumulated savings of over $6,000 in electrical energy costs.

A PPD Basic Package will have socio-economic benefits for people in the way it will help to enhance energy efficiency in homes and businesses, limit peak period energy costs, decrease use of our natural resources with the ultimate goal to reduce GHG emissions intensity. Residential PPD systems could potentially impact New Hampshire in very positive ways as it meets energy efficiency goals. A PPD Basic Package installed in every new residential construction and retrofitted in existing homes at a conservative rate of 0.85% per year, would impact the reduction of electricity consumption in the residential sector. Our conservative estimates show how the residential sector can impact New Hampshire's economy with savings of 1,415 GWh of unconsumed electricity in 2025. From now to 2025, unconsumed fossil fuels for electricity generation will total 192 short tons of coal, 94 barrels of petroleum and 5,990,000 cubic feet of natural gas. This represents electricity provider savings of just over $100,000 and 483 metric tons of greenhouse gases not emitted to the atmosphere.

Climate Change Policy Task Force Members, your support for the development of sustainable technologies, like our PPD system, will help turn knowledge and innovation into strategic opportunities, industrial development, market entry and international commercial exploitation that will improve the technology base, create jobs and prosperity in New Hampshire. Please help us to create, demonstrate and deploy this new sustainable technology that will integrate economic viability, environmental stewardship and social equity to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Thank-you for your attention and help to promote the efficient use of electricity, reduce emissions of greenhouse gases and the promotion of clean air.

Sincerely,

Dalton R. Catchpaugh BSc
Demand Side Technologies LLC

NH Hunters and Anglers Want Action on Climate Change Concerns

New Hampshire hunters, anglers and sport shop owners seek action on climate change concerns. A dozen New Hampshire sporting clubs and over a dozen small businesses involved in serving the sporting community recently signed on to a letter to Congress requesting ACTION to curb the causes of climate change. Across the Nation nearly 700 sporting clubs signed on to this letter. Specifically these sportsmen are calling upon our Senators, Gregg and Sununu, to support federal legislation curbing global warming gasses by 2 percent per year.

These sportsmen represent the one in seven New Hampshire residents who hunt and or fish. That's 108,000 who fish, and another 51,000 residents who hunt, spending on average $700,000 per DAY. Hunters and anglers spend $255 million per year creating over 4,000 jobs that depend on this industry. The ripple effect from this infusion into our economy is close to a half billion dollars per year.

Hunting and fishing is not just a way we recreate, but is a way of life in New Hampshire, contributing to our culture and adding to the quality of life. In a recent poll two-thirds of the hunters and anglers surveyed say they have seen changes to fish or wildlife or their habitats due to climate changes. Thousands of experienced sportsmen and women are witnessing changes they believe are directly related to global warming. These changes are occurring across a range of fish, fowl and furry woodland creatures. Because of these observations, hunters requested changes in fall woodcock and waterfowl hunting seasons to compensate for shifts in fall migratory patterns.

Over on New Hampshire's seacoast river herring runs on the Taylor, Exeter and Oyster Rivers have declined significantly the last half decade. This is due to high summer water temperatures which is depleting the rivers of oxygen just after the adults have spawned millions of eggs into the freshwater.

The New Hampshire Fish and Game Departments recently completed Wildlife Action Plan lists a whole host of species which are at risk due to global warming. From Alpine habitats and the rare White Mountain Frillary butterflies to Pine Martens, Common Loons species then to Common Terns at the seacoast, many species are at risk.

The time for action is now. The Lieberman/Warner Climate Security Act is the best tool to implement changes that will soon begin to reduce carbon dioxide levels by two percent per year. This bill couples a cap and trade system with funding much needed dollars to be used right here in New Hampshire to help mitigate the effects of global warming on this states fish and wildlife resources. Funding from the Lieberman/Warner Bill could be used to implement this state's Wildlife Action Plan focusing resources specifically on species most threatened by climate change. New Hampshire hunters and anglers ask you to support legislation that reduces pollution that causes global warming both at the state and national levels. Sportsmen support additional funding sources that will help fund the preservation of our fish and wildlife for future generations.

February 19, 2008
Eric Orff
Epsom, NH
603-731-0054

Hi Joanne and Chris, I hope this is an acceptable place to send my comments from last evening. Chris already probably has many if not all of my comments. But just to be sure I will make them here.

1) You all are probably aware of the Congress of New Urbanism (CNU). They design new urban areas to increase walking (sidewalks, cars in back, etc.), put rapid transit stops/stations at the center of the area, specify grocery store, drug store, maybe theater and other public services in close to the transit stop, then condos, apartments in close, then houses, commercial areas and industry in succeeding concentric circles. This reduces place of living to work, to shop distance and often leads to biking and walking; also easy access to the center of urban area by transit. It is really more than this brief description.

2) I believe it is important to be sure that ANY new building/structure be constructed so as to be easily updated when new technologies become cheap enough for normal people. Here are some ideas that should be considered/required in all new structures:

a) The building should be oriented so the major axis is east-west so that it has maximum solar exposure; if appropriate roof angle and overhang should be designed with passive solar ideas in mind, and so when solar photovoltaics are cheap enough they can be easily installed.

b) This should include electrical and maybe plumbing chases (a hidden place to run wires/pipes for PV, control, power, solar hot water, etc.) from roof, from south windows (for when windows can generate electrical energy with built in solar cells - which are being developed currently), and from possible windmills or other generating devices such as fuel cells.

c) There clearly would be exceptions to such a requirement!

d) Minimum values of insulation and air infiltration of air, window R values, etc. should be specified eventually. Buildings will generally last for 50 to 100 years or more, so we need them built right starting now.

e) Probably similar ideas should be set down for renovation of buildings/structures.

3) I agree with those who think a short background of the reasons for this document: Peak oil is likely here or will be shortly (even if oil production goes up for a few years), global climate change (one need not have 100% belief in climate change to think that these actions are necessary - only need a relatively high probability since the risk if wrong is so high!), dependence on foreign oil or sources of energy, etc.

4) I also think a (short?) Vision statement is important in the front: prepare for problems with weather in getting energy, food, ... and trying to keep greenhouse gasses down to keep ocean water level rise from being too large [James Hansen's recent paper shows that if the CO2 level remains above 350 ppm (it is now 584?) then eventually all ice on earth will melt and the level will be 70 meters higher = about 220 feet! Also we must reduce our use of coal for CO2 reasons but also for air quality, protection of our mountains, forests, desserts, and other lands including farm lands. More can be added here.

5) The Vision can lead to legislation to help Town Energy Committees in doing their job by not having to each fight for needed permission from their town councils.

6) Are you all aware of Edward Mazria's Architecture2030 movement?
It is a project to be sure all architects are trained in energy efficient building design within a few years since about 50% of all energy use relates to the materials, transportation to site, building and running of structures. The website has lots of information: http://architecture2030.org/

7) With regard to education of the public: I'd like to see the whole state start to do the small group discussion guided by The Natural Step Program. The books "The natural Step for Communities" by Sarah James & Torbjorn Lahti published by New Society publishers in 2004 and "The natural Step for Business: Wealth, Ecology and the Evolutionary Corporation" by Brian Nattrass & Mary Altomare also by New Society Publishers in 1999. These books have many good examples of what towns, cities and businesses have done to reduce energy use and become more sustainable and save money at the same time. Could the Department of Education start the process with teachers throughout the State of NH at all levels, then get all staff and then all students exposed to the ideas of living in a sustainable world. Modified readings/texts would likely be necessary for different levels. But the payoff would be in 10 or 20 years a group of young citizens which can contribute to the State of NH becoming sustainable environmentally, economically and as a community. This education component is important for the long run success of New Hampshire as it moves to deal with energy and climate change challenges.

8) Consideration should be given to the question of Solar Rights. A number of jurisdictions have laws about not interfering with access to the sun other parties. Various examples can be found on the web. Since it is known that passive solar heating can reduce heating costs by 54% in the Vermont/New Hampshire region, solar access is important.

I hope to add more as I read the next version. Thank you for the opportunity to comment on your document.

Sincerely, Filson H. Glanz, Durham, NH 03824

This is phenomenal! So glad that there is so much going into this. Considering the catastrophic nature of the cc problem and the huge hurdles, it is imperative to be constantly pushing the envelope of how we respond to this crisis.

California, lookout! - NH will hopefully be the nation's model for bold, effective cc measures! ..... (but there's not time for every state to get onboard on their own timeline, so let's have NH lead the way in pushing for and having our congressmen (and congresswoman) create the bold national (and international) legislation that is essential! .....

..... Oh, forgive me! ... My feet seem to be glued to this soapbox!!!! ...(and I imagine the choir is in need of a new tune!)

Thanks for your inspiration.

Gail (I assume all comments directed to the task force should be submitted as close to Aug. 27 as possible, at the latest?)

Gail Denemark
gdenemark@yahoo.com

Dear Mr. Burack

I encourage you to include support for local energy committees as a priority for the Climate Policy Task Force, which I understand you are chairing. I believe that local, grass-roots efforts are a critical part of the process of reducing the state's overall greenhouse gas emissions, and can in many ways go hand-in-hand with a more top-down approach from the state.

I know that our energy task force here in Barrington has been very active in addressing important issues about energy use, probably in a way that would be hard to accomplish from Concord.

Please include support for the local groups in the Task Force's recommendations.

Thank you.

John Wallace
218 France Rd.
Barrington, NH 03825

Dear Commissioner Burack:

A major, perhaps the major item missing from the State/Local leadership section of the plan is a means to provide sufficient funding to support investment needed to achieve the emissions reduction and energy cost savings that New Hampshire needs.

It is vital that New Hampshire leaders become involved in the process by which national climate legislation is shaped. The candidates for president and Congress and our elected officials are thus far hearing mostly silence on the specifics of needed national climate legislation -- and they are therefore remaining silent on these specifics. They need to hear from the Task Force, the DES, and the Governor that ...

New Hampshire needs strong national climate legislation, providing significant pollution allowance revenues to help us fund the clean energy, energy efficiency, and adaptation priorities now being carefully identified by our Local Energy Committees and by the state in its climate plan.

Thank you,

Jim Rubens
Union of Concerned Scientists
(603) 643-6059
(603) 359-3300 c
JimRubens@aol.com

Dear Mr. Burack,

Thank you for your hard work as Chair of the Climate Policy Task Force in NH. Through my work in the solar energy field over the last 8 years working in NH I have come to realize that people of all ages and means throughout the state are eager to be part of the solution to Climate change. I have seen that some residents and businesses are leading the way but we also need policies at the state level if we're going to mitigate this MAJOR IMPACT on all of our lives. I believe that the task force recommendations should include meaningful goals for the legislature, the governor and state agencies, and the private sector. The task force recommendations should include a roadmap to help the public and private sectors capture, measure and be accountable for results from early actions within one year.

The state must lead by example and pay attention to local efforts, and the state has an obligation to ensure that local governments have the ability and capacity to solve energy and climate issues with local solutions. New Hampshire has the largest percentage of towns participating in the EPA Community Energy Challenge of any New England state, and citizens in over 90 towns have formed local energy committees; these committees should be given the means to take local actions. Working together, across town lines and with state experts, the citizens of the state can be confident that New Hampshire is leading by example.

Statewide solutions will not work in every town, yet every town is facing energy challenges that - once addressed -will also reduce greenhouse gas emissions.
I believe that the state must make prudent and productive investments to reduce energy use and greenhouse gas emissions.

Thank you for your consideration. Sincerely,

Ted Vansant
Commercial Sales Director
Solar Works, Inc.
T 866-968-7359
F 866-300-4878
tvansant@solarworksinc.com
www.solarworksinc.com

Dear Sir:

Please act thoughtfully regarding issues and approaches to addressing climate change issues. The time to act is now in constructive cooperative efforts to insure the well being of the residents not only in this state of N.H. but also in the finite world we live in. A world hopefully that future generations will be able to live in.

Sincerely,

George D Harvey
P.O.Box 485
Hampton Falls. N.H. 03844

I would like to comment on the issue of decreasing unnecessary idling. I was very glad to see this addressed in the Transportation and Land Use section, Action 1.D.2. This simple measure which everyone can practice could result in hundreds of thousands of tons of CO2 being eliminated.

As I suggested at the Aug. 27th meeting in Meredith, NH, I recommend that the concept of educational outreach cited in Action 1.D.2 be expanded upon by having Governor Lynch declare an "**Idling Awareness Day**" to be repeated each year "as needed".The NH DES already has excellent information and numerous resources on the effects of idling and the benefits of eliminating it, much of it available on-line. Most K-12 schools and school bus companies already receive such information each Fall.

Asking schools and other entities to highlight the problem on a specific day across the state would provide a compounding effect. In Hanover, our high school Environmental Club was very anxious to help spread the word in our community. Other groups, including Chambers of Commerce, Rotary and Lions' Clubs, as well as local energy committees, could be asked to aid in the distribution of information.

Since all four colleges in the University System of NH should definitely participate in the effort to reduce idling in their fleet vehicles, it is both logical and appropriate that they help publicize the information on the given day. NH Dept of Transportation electric signs along highways could relay the same message.

You may be aware of the No Idling Campaign going on in our neighboring state of Vermont. If Gov. Lynch wanted to really leverage the effect, he could invite the governor of Vermont and the 10percentchallenge to join in sending a NO IDLING message on the same day. [http://www.10percentchallenge.org/]

Thinking even bigger, would be to look ahead to a regional effort, perhaps suggested at the annual conference of the regional governors.

Continued---
The State already has at its disposal a Statute which addresses unattended idling vehicles: [http://www.gencourt.state.nh.us/rsa/html/xxi/265/265-72.htm], and I know Rep. Gene Andersen of Lebanon is considering legislation to address the issue and effects of unnecessary idling.

There is always a question of how much should be regulated and how much can be accomplished via educational outreach. If practical New Englanders are appealed to from the standpoint of common sense, emphasizing both the money saved on expensive gasoline being wasted and stressing the fact that the pollution which cars emit will remain in the air we breathe for *decades* to come, perhaps education will have a greater effect and less regulation will be needed.

At one point recycling was the exception, not the rule. Now it is second nature, especially to the younger generations. This is what I would like to see with respect to idling---turning off your engine when not moving should be the 'norm', not the exception. People must be made aware that their individual actions can have a significant effect as it is being multiplied by the similar actions of thousands, if not millions, of other individuals.

Thank you for your time.
Marjorie Rogalski
Hanover, NH
603.795.2037

MEMO

To: Commissioner Burack
From: New London Energy Committee (NLEC)
Alicemary M. Sprickman
morrsaif@nhvt.net
Date: August 27, 2008

The month of August turns out to be a poor time for our Committee to initiate a discussion about your Climate Change Policy proposals, however well-developed they may be. I hope that this does not hold true for the other Energy committees around the State. Climate Change is not a seasonal event.

Below I have summarized the e-mail input I have received from members. Because we were unable to meet and exchange views, it does not represent a consensus.

I Adaptation and Readiness – ADP

One member considered this area to be of the greatest importance for development. Staffing would require not only constant monitoring of all other aspects of planning and implementation of Climate Change Policy but also a clear and consistent public voice of actions underway.

ADP Action 1 – This is considered to be the most critical need in the state and perhaps in the nation. Perhaps because of the current emphasis on the Presidential election, Climate Change which is a non-partisan issue has been politicized. The press in general has tended to weigh the pros and cons as equally recognized views for public presentation and it has been considered as just another issue in another otherwise overburdened slate of political concerns. The distribution of critical information therefore has to overcome the barrier of casual acceptance or skepticism by the public.

ADP Action 2 – The need for selection and implementation of policies and actions is coming at a time when broad budgetary problems are being encountered by the State and the region. This may lead to decisions of a 'penny-wise/pound-foolish' nature which has been prevalent in recent years in final budgeting of school construction around the state.

ADP Action 3 – Public Health Officials may prove to be one of the strongest links to communicating accurate information and willingness by the public to undertake new and different strategies.

ADP Action 4 – Added stress should be given to 'emphasis on regional development strategies'. Not only might this lead to better budgetary decisions, it also will emphasize that Climate Change is global in nature—not local.

ADP Action 5 – Some towns and cities have already included long range goals in their Master plans that pay homage to the need for developing ordinances, building codes and infrastructure planning that reduce and/or conserve energy use. These communities can provide tutorial opportunities for other communities which have not yet progressed to that level of planning.

ADP Action 6 – Last year forward thinking elementary teachers in the Kearsarge School District initiated projects with their pupils which examined in a hands-on fashion various aspects of environmental concerns and understandings. There may be no better way to bring busy adults into

a broader awareness of these matters than through the activities of students at all levels of education from Kindergarten through graduate school.

ADP Action 7 – The appointment of an Advisory Council will undoubtedly prove to be a necessity but it should perhaps occur later rather than sooner in the process of implementing the Climate change Policies. There exists a tendency for communities to appoint and charge a formalized group with a responsibility that is not fully comprehended. Because the group exists, the broader community considers the matter cared for prior to full understanding of what is entailed.

II Electric Generation – EGU

EGU 2.5 – Nuclear power should be seriously considered for the generation of electricity. Objections to how spent fuel is to be stored is made to appear to be a much bigger problem than is actually is. In part, this is a matter of public education as to how nuclear reactors work and how they can be made quite safe. (UCS agrees with this but also cautions that monitoring vigil by NRC must be strengthened). Any form of energy generation has its downsides, witness CO2 emissions from fossil fuels or collapsing mines from coal extraction. The downside of nuclear energy production needs to be brought in line with these known entities.

III Agriculture, Forestry and Waste Management – AFW

These goals are critical to mitigation and adaptation by communities and individuals. Interagency cooperation and action will be necessary for public/private cooperation. Incentive programs will be needed as some planning will be tentative and experimental in nature. Land management policies should precede or be developed simultaneously with agencies representing transport, and residential/commercial planning. This makes for a level of complexity not easily solved.
Many of the actions in this chapter do not lend themselves to local actions, but do require interagency cooperation at the state or regional level.

AFW Action 1.3 –Durable Wood Product Promotion – This should be done with local businesses in promotion. It also entails consumer education perhaps provided by LECs and incentive programs for entrepreneurs or families desirous of home renovations.

AFW Action 4.1 – Strengthen Local Food Systems - Encourage farm markets and super market local purchasing programs. For new neighborhoods, provide information on roof gardens, strip gardens and the development of mixed flower and vegetable garden beds.

In communicating with the Federal Government, encourage the reduction and removal of farm subsidies. This will help to encourage more Localvore action and will also encourage foreign third world agricultural initiatives—a tip of the hat to the global aspects of climate change.

IV Residential, Commercial and Industrial – RCI

RCI Action 1.4B – Increase Building Energy Compliance Code – There needs to be an increase in the manpower for inspection. Many communities have no one available for these tasks and need to look to the state or to private sources for their availability. Compliance to codes should not be put on the back burner.

In addition, the State Education system either through the Technical Schools or through the University programs or both should lead in providing training for people prepared to function at this level. Ongoing in-service programs should also be considered.

V Transportation and Land Use – TLU

The lack of public transport other than in the more urban areas is a current need which is going to grow in importance, as energy costs rise, and as the elderly population continues to grow. Highway construction and bridge repair costs are already being targeted because of the shrinking dollar. Established plans for new highway construction not yet underway should be reviewed for feasibility as to alternative means of providing for movement of goods and people and for the best decisions on the use of land.

Goal 2.B Encourage the use of bus transport and the ability of buses to transport bicycles. Consider the use of bicycle stations within communities for ease of citizens needing cross town travel.

Provide more bike routes between communities. (e.g. There are none from the South to Concord

VI State and Local Leadership – GLA

These all appear to be necessary actions, but how many of them will require legislative action? Given the tendency of the NH legislature to equivocate, how realistic is it to achieve these goals by 2020? 2030?
What is the projected time line?

One of our committee members responded by saying the "it all looked like boiler plate" to him. I assume he was referring to the reality of actually achieving this ambitious program.

GLA 5 Reduce Fuel Consumption by State Fleet – This is strongly supported. An idling policy should be strongly enforced, including the Department of Safety (Police cars are often seen idling by the road side).

It is noted that Sweden has a mandatory efficient-driving training program as a pre-requisite to obtaining a license.

Roadside maintenance and landscaping programs should be reviewed for the purposes of reducing fuel use.

GLA 2.5 Reduce Energy Use in Government Buildings

If making a choice, determine which is better, running the Ac or opening a window.

Put more emphasis on telecommuting, teleconferencing and establishing efficient retrieval of computer files and archives.

Dear Mr. Skoglund,

It is my view and hope that every community in NH should focus far more resources to local food production to be grown and used by students in our schools, as well as for the community at large. I volunteered for the food and agriculture committee as part of the Mount Washington Valley Green Team, but this overwhelming challenge requires SO much planning.

The one thing that scares people the most in times of economic strife or weather catastrophes is having food to eat. In America, in my view, we have become lazy and complacent about where food comes from and how it is produced. I am convinced there is an inextricable link between diseases seen in younger and younger children, and the food they eat and drinks they consume.

By exploring the world of solar or geothermal greenhouses as part of every schools curriculum, perhaps part of Future Farmers of America, and using the brightest minds to engineer a system of harnessing the sun to heat them, and capture water needed, we can mitigate the problems resulting from the federal commodity food programs. This USDA program that uses tax dollars,(then charges us again for school food), sends the highest fat, highest cholesterol, and highest sugary products to school kids who already suffer from skyrocketing rates of obesity, developmental problems rooted in absorption of the many toxins and chemicals used to produce food(and eating highest on the food chain).and other preventable chronic diseases. We could help reduce many problems with disease rates, fossil fuels used in food transport, and help kids reconnect with the miracles of nature, by focusing on creating local greens-houses that are powered with alternative energies, to brake our dependence and reliance on the grocery stores and USDA commodity programs. Sure, we'll need to eat less of a variety and need to return to jarring and canning, and perhaps this will not be enough to sustain the entire community, but we can start somewhere.

That's my hope.

Thank You,
Laura Beth Slitt
Bartlett,NH
374-1996

To: Christopher Skogland
Department of Environmental Services

From: Caroline Snyder Ph.D.
Citizens for Sludge-Free Land [CFSL]

Re: Climate Change Policy Task Force

September 15,2008

Dear Chris:

CFSL is unable to attend the public listening sessions scheduled during this month and would like to present written comments and suggestions to your task force with regard to one way in which climate change can be alleviated in this state.

CFSL, as well as the Sierra Club (see attachment), support using landfill generated methane as a source of energy. As you know, the Turnkey landfill in Rochester is currently embarking on a methane-to-energy project with the UNH campus at Durham.

Land application of sewage and paper mill sludges is increasingly becoming an expensive and unacceptable sludge disposal option in this state; especially with our high and varying water tables, acidic soils, lack of suitable sites, new weather patterns, and rising fuel prices. Also, recent national legal and scientific developments with regard to land application indicate that the practice will, most likely, soon be phased out by substituting less costly and more environmentally friendly options for sludge use.

Putting sludges into landfills and then capturing the resulting methane is one such option. It is a win-win situation: it is cost-effective, reduces the use of fossil fuels, while at the same time protecting New Hampshire's agricultural land, public health, and the environment.

We urge your task force to recommend the capture of landfill methane, generated by sludges and by other non-recyclable organic wastes, as an important non-fossil fuel source of renewable energy.

Thank you for the opportunity to present comments.

Caroline Snyder
President
Citizens for Sludge-Free Land
603 284-6998
www.sludgefacts.org

To: Commissioner Thomas Burack, C/O Chris Skoglund
From: Don McGinley

Dear Commissioner Burack,
Thanks very much for the opportunity to comment on the Climate Change Action Plan draft report. Overall, you are doing an excellent job in my opinion.

My specific comments follow:

1) I attended your kick-off public meeting at the State House last winter. My one public comment then was to encourage the Task Force to review the inaccurate science consequences some 2 or more decades ago that predicted Climate Cooling. I asked that the Task Force review the significant skepticism that resulted on the part of the general public, and very accurately but simply state the case now for Climate Warming. I'm sure you are aware that the general public nationwide is somewhat to very skeptical on Climate Warming. I again strongly encourage you to address this issue in your final report.

2) The draft report fails, i.e. dodges, to address the subject of nuclear power in any meaningful way. The Bow power plant scrubber project, as you well know, is now a financial mess and the mercury, sulphur dioxide, carbon dioxide and other pollutants spewed from the plant are unacceptable to anyone even casually informed on the subject (I testified on the 2007 SB191 bill to the Senate committee that rubber-stamped the unacceptable date for implementation). The subject of nuclear power needs to be raised by the Task Force to the point where general debate can occur for a Go/NoGo decision by "all NH citizens". The Task Force should "step up to the plate" on this issue rather than cower to the vocal minority.

3) Like most people, I voted for the "Climate Resolution" referedum item that included creation of "local energy committees" statewide. While I strongly support state and federal efforts on the subject, review of much of what is resulting from the "local energy committees" makes little to no sense in my opinion. Emotion coupled with inaccurate and costly so-called energy savings is not what New Hampshire needs. I would not vote again for "local energy committees" as they just get in the way of statewide progress (too many cooks syndrome). I strongly suggest that the final report clearly place the local energy committees where they belong, strictly as "local advisory committees".

4) The draft report defines an Energy Management Unit with the cost of implementation born by user fees and chargebacks to all state agencies. After reading the draft, I concluded that new taxes (fees are taxes) of some kind will be required to support the direction recommended by the writers. New taxes are not acceptable to me just as the 17.5% increase in the state's current budget is not acceptable. Such actions simply bring us closer and closer to a broad based tax as you well know.

I hope these comments are of use to you and to the Task Force. I sincerely appreciate all of your dedicated efforts.

Donald J. McGinley
373 Lyndeboro Road
New Boston, NH 03070
603-487-5075

ps: As a sidenote, I realized last night that I used an incoorcet Bill Number and Date in regard to the Bow Power Plant bill that I testified on. The correct date was **2006**, not 2007 and the correct Bill Number is **HB1673**. I testified to the Senate Energy Committee (Sen ODell was chair). If you pass a hardcopy of my comments to the Task Force, please just handwrite the correct references atop the incorrect ones.

Hi Christopher,

Unfortunately, I will not be able to attend the listening sessions associated with the Climate Change Action Plan.

I work in the Renewable Energy Industry and feel that we need to change our existing habits to deal with the Energy and Climate issues we are currently faced with - those issues are not temporary.

Here in the Great North Woods we are very heavily dependent on motorized recreation. We have suffered a number of years of economic hardship because of declines in motorized recreation activity and because of the closing of a number of large facilities. As part of the Climate Change Action Plan, the economics must be considered.

I feel we are setting ourselves up for yet more economic hardship if we continue to put our eggs in the motorized recreation basket. Part of NH's plan must be to wean ourselves from this dependency and this is best done by promoting a multifaceted approach. Attracting low-impact industry to the area is one strategy. I advocated that the Solar incentive program that took effect in July should have provided more incentive money to people who installed Renewable Energy equipment manufactured here in NH - a great way to generate demand for and attract good industry.

Attracting non-motorized recreation users is another strategy. Why not set up a mass transit system to bring hikers, skiers, snowshoers, nature watchers, birders and other foot travelers to the North Country in an environmentally responsible manner and at reasonable cost. Car pool lots in MA and southern NH could be the pick-up points and local shuttles could get people to their final destinations up here. Ideally we should have a passenger rail system from one end of the state to the other and bus networks tied to it. This system would also serve to allow North Country residents to travel south when necessary without wasting fuel on driving a car. I begrudge no one the use of motorized equipment to perform useful work around their farm, woodlot, or garden. But the use of the earth's limited resources for joyriding is indeed irresponsible and it makes our country more dependent on other nations than we need to be. Let's look and act to the future in a responsible manner.

Thanks for considering these ideas,
E. H.

E. H. Roy
11 Roy Road
Stewartstown, NH 03576
603 237-5843
ehroy@peoplepc.com

Chris,

I'm Steve White of the Rye Energy Committee.

I thought last night's session was good although I expected a greater show of interest from the public. I believe the Task Force should submit bold recommendations and not compromise now by removing any recommendations that might be politically difficult to sell (i.e. new or increased taxes). Many of the recommendations list as barriers a perceived loss of choice. In fact, it is the choices we've made in the last 50 years that has got us to where we are with climate change. If choices are restricted in the future, it is to minimize the effects of climate change for future generations.

Also, the Rye Energy Committee is planning an event on Oct 23 to disseminate information on weatherization and fuel assistance to citizens that are in need of help. The staywarmnh.org web site will be a great help to us in preparing for that event. We're planning to have a couple of speakers present the information. Is there someone at DES that could perhaps be one of those speakers? If so please pass that info along to David Doskocil (email above), our Committee member who is taking the lead on planning the event.

Thanks.

Steve White

Hello Mr. Martin ,

I am President of Green Power Management here in New Hampshire and we are bringing several innovative energy efficiency technologies (LED lights) to the New England Marketplace as well as renewable energy alternatives like our "GUS" vertical wind turbine system. Information has been included for your review. The GUS wind turbine will shortly begin manufacturing here in Pelham, New Hampshire.

I hope to attend the Governor's Climate Change Policy Task Force on the 18th at the PSNH office in Manchester. I am interested in learning what your plans are for energy efficiency and renewable technologies for the State of New Hampshire.

Please let me know if GPM can meet with you and your staff sometime after the Public Listening Session to get further understanding from a business perspective of the Climate Change Plan.

The VA Hospital in Ann Arbor, Michigan slideshow is to show one of our turbine installations in the US. There are additional 5 GUS units being installed in Massachusetts in the very near future. You can go to Utube and type in GUS vertical wind turbine to see the 5 kw installed on Esther Island.

Our LED lighting technology pilot projects are close to getting started in New Hampshire with several well known customers that we would like to share information about their success and deployment with you as we want to have a positive impact on Climate Change in our state.

I look forward to talking with you.

Kind Regards,

Michael Koutelis
Vice President
GPM
Green Power Management, LLC.
Visit our web site at www.greenpowermgt.com
e-mail: mike@greenpowermgt.com
Tel: 603-679-2071
Fax: 603-658-1853
Cell: 603-770-9945

Dear Sir:

I expect to be there and speak, however, the majority of what I have to say is contained in a web page at http://wermenh.com/climate/gccptf.html .

Should I bring copies to pass out to the task force or will you be
distributing
comments you receive before the meeting?

How many members of the task force will attend? I got the impression at the meeting at NH Audubon that members will attend one or two meetings as convenient.

How many members of the public have attended previous sessions?

- Eric Werme

http://wermenh.com/climate/gccptf.html

Testimony to
NH Governor's Climate Change Task Force
Public Listening Session 2008 Sept 17

Climate change or conservation?

I attended part of the task force's meeting at the NH Audubon center and have read several of the documents produced by the task force. My interest in the subject centers around my long interest in climatology. However, I was surprised to find that most of the task force's product will be recommendations on conservation and that there is very little about climatology.

Conservation is certainly something to be encouraged, though given current gasoline and heating oil prices, conservation is happening through market forces. There is certainly much more to be said about conservation, but for the most part I will leave that to people more interested in the subject than I am.

Linking conservation and climate change together is a bit of an odd mix, especially if you look at just the winter heating season. If the climate is warming, then residents of the state will heat less. If the climate is cooling, then the pressure of an expensive heating season will encourage many forms of conservation. If global warming is due to CO2 emissions, then a negative feedback path exists as residents will heat less and therefore produce less CO2. If CO2 has little impact on global warming and if the climate cools, then the conservation pressure will be largely economic.

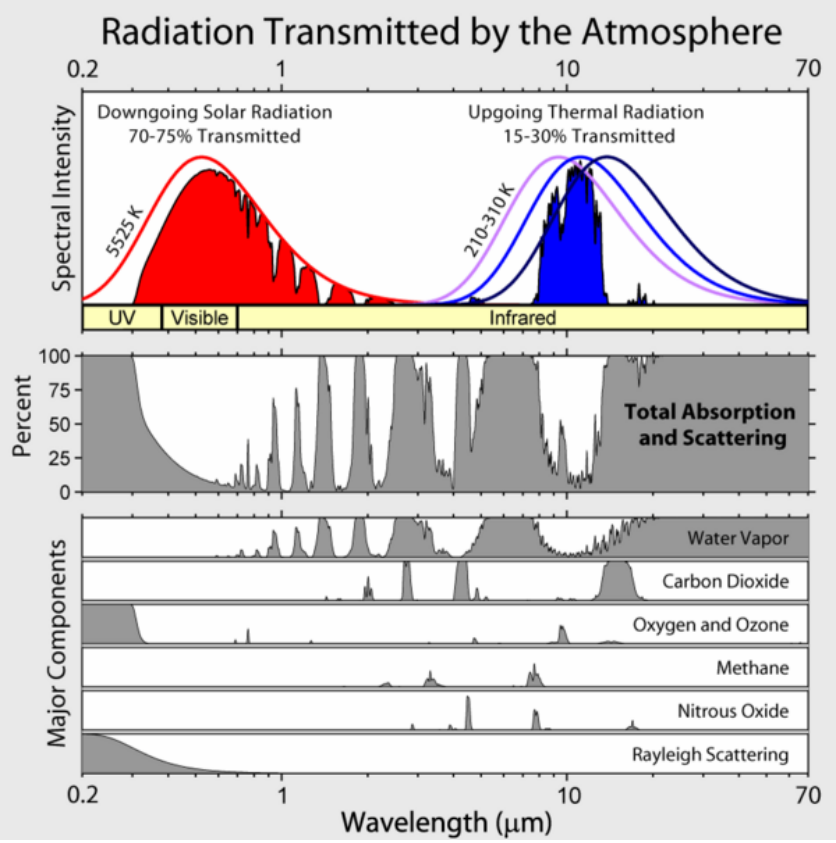
Climatology in a nutshell

My goal in this presentation is to report on some fascinating developments in climatology that I have not seen in your reports. In fact, the only references I have seen refer equate climate change with global warming and include a tacit understanding that CO2 is at fault.

So, lets start with CO2. In the past year, there have been many anecdotal reports of cooling. It has snowed in Melbourne Australia, Johannesburg South Africa, Baghdad Iraq, and most recently in Brazil. Sydney Australia just had its coldest August in 60 years. Earlier in the year in China and Vietnam freezes devastated rice crops and killed thousands of farm animals. Many people in Afghanistan lost limbs due to the cold. In Tajikistan frozen mountain rivers forced the shutdown of a hydroelectric plant that powered the capital. In the United States snow persisted well beyond normal melt dates from the Rockies to the Cascades. This summer, Anchorage Alaska reached 70 degrees on only 2 days this year, last year they did on 21 days, in 2004 they set a record for the most days at 49. Here in New Hampshire, temperatures have been unremarkable, but snow last winter surpassed all but the 1873-1874 season. This, of course, was blamed on global warming, but given that 7 of the top 10 snowfall seasons occurred in the last three decades of the 19th century, it may make more sense to worry about a return to those years.

Recent rain and flooding in New Hampshire has been blamed on global warming. Global warming has a supposed connection to extreme weather, but note that there were serious floods in 1895 and 1896, the all-time worst flood was in 1936 (it started the flood control dam building projects) and two years later in 1938 the worst hurricane in the region's history brought more rain to already soggy ground and led to a flood nearly as bad as 1936.

Cold weather isn't supposed to be happening - CO2 is a greenhouse gas, it's clear that concentrations are increasing, shouldn't temperatures be rising? There's a problem - CO2 warms by absorbing and reradiating infrared light of a particular range of wavelengths, and there is enough CO2 in the atmosphere to absorb nearly all of that range. That means increasing CO2 levels will have less and less additional effect.



The above shows how much of the incoming and outgoing radiation is blocked by atmosphere components. Note the rightmost band for CO2, that's the IR portion that CO2 blocks, note that it's saturated except for the edges of the "window."

Above is a graph showing the correlation between CO2 and US temperatures. It's not as up-to-date as it should be and doesn't show the leveling off and recent decline in temperature. CO2 continues to climb.

If not CO2, then what? A link between Sun and climate has been found in several areas since 1801. Solar output (total solar irradiance, TSI) correlates better with temperature. above is a graph showing both for the United States.

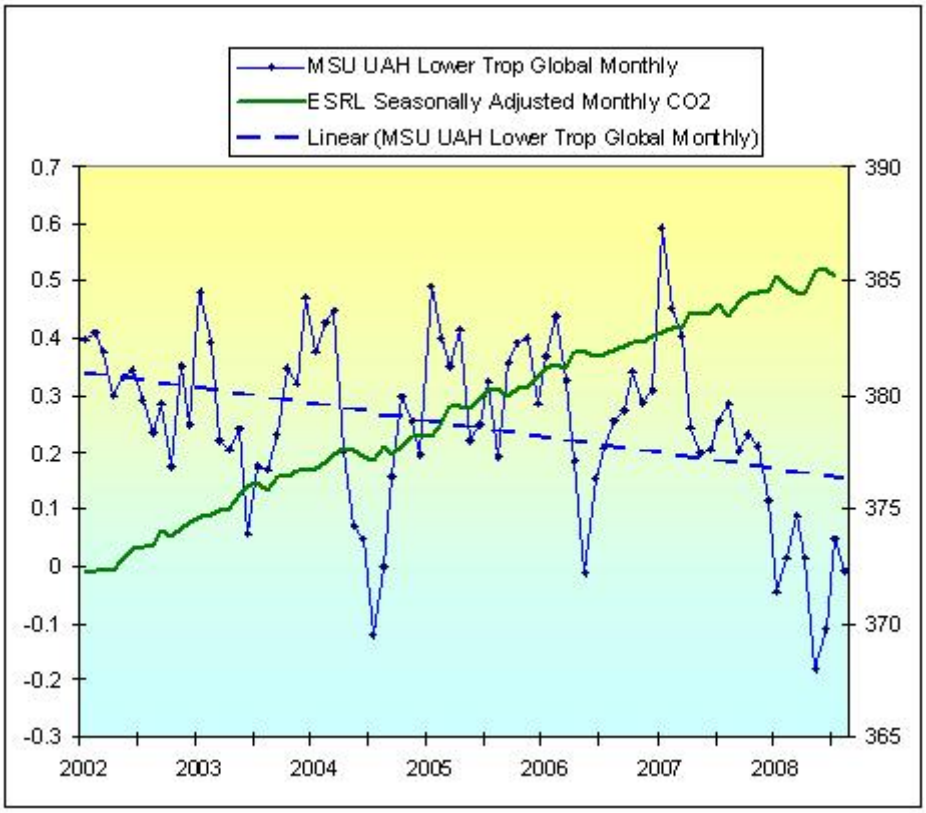
The multi-decadal oscillations in the neighboring oceans produce the best correlation. This is even better in more recent data with the downward shift in the PDO and US temperatures.

The link between solar activity and ocean circulation is unclear, let's look at each in a little more detail. Solar activity is related to sunspot counts, and we're currently in a protracted solar minimum at the end of solar cycle 23. This has made cycle 23 quite a bit longer than recent cycles, and some solar scientists claim that a long cycle means the next cycle will be weak. One forecast is calling for cycle 24 to be strong but 25 to be weak.

Of the Pacific and Atlantic oscillations, the Pacific, being larger, has the most overall impact. The Pacific Decadal Oscillation (PDO) flipped to its cool phase in 2007. A cool PDO cools the Pacific region and favors the formation La Ninas, and those also bring cooling. The Atlantic Multidecadal Oscillation (AMO) has been in a warm phase since 1995. A warm AMO brings warmer sea surface temperatures, and that's largely responsible for the active hurricane seasons since 1995. The AMO may flip cool in a few years, and that should reduce hurricane activity to the low levels we had in the 1960s and 1970s. It may also bring back the cold winters of that period.

If US and global temperatures are indeed more affected by ocean currents or solar activity than CO2, then there is no reason to connect conservation with CO2 reduction. In fact, if the recent cooling continues, advocates for conservation may find themselves tangled in the wrong coattails.

Global warming ended in 1998, global cooling began in 2007.



Above is a chart of recent temperatures. The 2007 peak is due to El Nino, that was followed by the PDO transistion to the cool phase and a La Nina late 2007 to mid 2008. Currently we are in a neutral period, but may be slipping back into La Nina conditions.

Climatology data is hiding in the noise of day-to-day weather. This means that we need a long period of data to get a handle on what's happening, especially when looking at multi-decadal cycles. However, there are exceptions, the best is when we want to take an early look at something. The PDO warm to cool transition is one of these. When it last changed in the late 1970s, it went from cool to warm and nearly simultaneously global temperatures took a step

upward. Hence, given the recent warm to cool transition it's only natural to look for recent cooling, and we see it.

Looking ahead, what can we expect? The cool PDO (with its suppression of El Ninos) and warm AMO are key indicators of active hurricane seasons. Some hurricane forecasters see a greater risk of landfalling hurricanes on the east coast. The AMO will flip negative in maybe 5-10 years and we'll enter another period or lower hurricane risk. (Note that Andrew occurred in one of these periods, so the risk never goes away!) This is something the task force all but completely ignores - the only reference to hurricanes in the Adaptation draft is about requiring hurricane shutters on coastal buildings.

The Blue Hill Weather Observatory in Massachusetts has found that average wind speed was about 15-16 mph between 1880 and 1980, but then started a decline to a current average of 13 mph. At the same time, there has been a diminution of nor'easters' impact in towns like Hull and Scituate. I know of no explanation for this, it would be worthwhile understanding if NH has seen a similar decrease and if we have somehow put ourselves at greater risk of storm damage if wind speed returns to past conditions. This is certainly something a task force on climate change could investigate.

Solar cycle 24 will finally assert itself, probably in the next year or so, but that may set the stage for sunspots fading from view in 2014 or 2015. Observations by William Livingston and Matthew Penn of the National Solar Observatory show a decline in the magnetic field strength that slow convection in sunspots. The slow convection allows the plasma to cool and appear dark. As the field weakens, more convection occurs and the net result will be that sunspots will fade from view. This has never before been seen, except possibly during the Maunder Minimum. No one knows what this means climatologically.

An old Chinese curse is "May you live in interesting times." When it comes to climatology, we are living in fascinating times. 50 years from now people will look back at these years as the "Golden Era" of climatology. We are finally gaining the ability to understand the components behind climate drivers and will be able to gauge how much impact each has (and how they are interrelated). The odd happenings with the extended transition between solar cycles and the Livingston/Penn study may lead to understanding how much impact solar variability has on climate.

It's a pity that so little of this is in the task force's documents.

Contact Ric Werme or return to his home page.
Written 2008 September 15, last updated 2008 September 18.

It will not be possible for me to get to a public session, so I'd like to comment on this issue via email.

It is urgent for NH to become carbon neutral as swiftly as is possible, as swiftly as the nation made dramatic changes in resource use during World War II. We must dramatically reduce energy use, develop local renewable energy sources, become far more food independent, promote alternate transportation, support weatherization of all buildings, and take all possible steps to reduce our use of fossil fuels.

Exxon Mobil and others whose *only* interest is squeezing the last dime out of the fossil fuel dependent economy pay scientists and advocates to obfuscate the issue. Please ignore their junk science. They are the concrete boots on a drowning man.

Independent scientists agree that the level of carbon in our atmosphere is dangerously high, and may have already reached a tipping point from which the dire, adverse consequences escalate.

We are on the blink of loosing the habitat on which our lives depend.There is nothing more important to the survival of our species than reversing that destruction.

Thank you for your efforts to develop a far reaching climate action plan.

Jill Robinson
PO Box 643
Walpole NH 03608

Cmr.Burack

The time has come and it is now to address the Global Warming impending crisis, there are many uninformed , misguided or confused who are hearing the words and presentations of many who are seeking to derail or side track taking effective and appropriate measures to implement programs and poloicies that will srve humanity let alone the citizens of the United States. There motivation is money and the power they wield with it. Alternative solutions do not serve the pockets of the fossil fuel industries which are the prime targets of doing things differently in the interest and welfare of the world community. Clean air, clean water, and purer foods serve all of our interests. We are our brothers keeper and their interests are our interests and our interests are their interests.

The science is clear and it is not semantical, the consensus is real by the world wide scientific community. Please, please do not let people motivated to maintain the status quo through dubious means undercut the moral imperative that faces us all. Future generations, your own family included will sink or swim on the basis of the actions we take now.

Our elected and appointed representatives are being challenged to resist industry pressures to move forward with courage to do what is right and necessary. Can we the people of New Hampshire rely on you to be a profile in courage and stand fast to support what so many New Hampshire towns voted to ask all of our government officials to do, take real meaningful and concrete action to address and support the need to address Global Warming and support fossil emission alternatives.

Together we can make a difference that will serve all of us in the world community and perhaps, just perhaps if we can unite on this issue we may see our connection to one another and unite to serve the interests of world peace.

Its a wonderful world,
Life is wonderful
Lets work to take care of it

In hope, sincerely
George D Harvey
P.O.Box 485
Hampton Falls, N.H. 03844

Dear Commissioner Burack,

I am writing to express my strong desire that the state invest in the future of New Hampshire and a sound energy policy. I am concerned that skeptics attending the Climate Change task force listening sessions who do not have the NH citizens interest at heart and base their objections on faulty science. The state must make sure to invest in wisely to reduce our reliance on fossil fuel and, reduce energy use and greenhouse gas emissions.

We need to invest locally and be an example to other states.

With the right incentives, citizens and businesses can retrofit and use more clean energy such as wind, solar and hydro.

The time to act wisely is now so that we can build a more sustainable future for our towns and future generations.

That can mean for example: better incentives for home and business that would like to use clean energy, expansion of public transportation, incentives for sustainable farming, encouraging local production of food, a bottle bill, mandatory recycling, assistance for town energy committees to help do energy audits of their town buildings and more!

Thanks so much for your assistance.

Sincerely,

Johanna Young, member of the Washington, NH Energy Committee
1388 South Main St.
Washington,NH 03280

Dear DES Commissioner Tom Burack,

A climate change action plan will give common sense guidance to the legislature, the governor and the private sector -- and will in turn contribute to the overall long-term health of NH's economy.

Tens of millions of dollars are swept out of state to pay for fossil fuels. We cannot let this continue to happen.

Invest in our future The state must make prudent and productive investments to reduce energy use and greenhouse gas emissions. We must invest in New Hampshire's future.

Invest locally The state must lead by example and pay attention to local efforts, and the state has an obligation to ensure that local governments have the ability and capacity to solve energy and climate issues with local solutions.

Sincerely,

Josh Arnold

After reading the draft and in particular the sections AFW Action 1.2, 1.3, 2.1 and in particular 2.2.1 I am extremely upset and do not understand, given the latest science regarding forestry practices with relation to carbon sequestration, how some of these recommendations have emerged. My major points of concern relate to numbers 2, 5,6 and 9. With regards to #2, "Restrict municipalities from enacting rules or regulations regarding forest harvesting over and above state regulations", I have two major points of disagreement. First there should not be any over-ride law if a community find value in many ways to their forest communities and smells of almost a "taking" policy that NH residents and politicians have always fought against. Second the state need s to upgrade it's regulations of forestry practices along with it's antiquated views and science of forestry, especially in the face of climate change. O, that's right, the two major division managers of this division have publicly stated that they do not believe in the science of climate change, which I find extremely interesting since they are on this task force perpetuating these old unsound practices. Next, with regards to #5, "educate the general public as to the benefits of forest management", I have been involved in science education and research for over 35 years and hope you would add to this education the latest research information, ie. Duke Univ. latest works supported by others as the best forest types/age stands, etc. regarding sequestration. Also, after speaking with Derrien Moore and a recent public gathering, share his views that we as a state and as part of a very healthy New England Forest ecosystem be extremely careful as to any major logging practices that may endanger our economy from a sustainable view because of the predicted climate change impacts that we have already ignored and will in fact get worse. And if we escalate forest harvesting at this crucial and "fragile" point we may see irreversible damage to major native "crops" like sugar maple, etc. So, with that, I think you should add not only the part of the statement that says benefits, but be fair and scientific and educate to the errors and negative impacts of certain forest practices.

With relation to #6, I have some of the greatest objection to as a tax paying citizen of this state. How dare the state presume that they can correctly manage and harvest my/our forest? Preservation, especially in this day of eminent climate impacts of public lands is essential. There have been incredible strides by private land trusts to conserve and put large tracts of land aside. Also, towns have followed suit but we the citizens are not guaranteed access to these lands 24/7 for recreation and the pure enjoyment of natural areas. We should be modeling the our management of these incredible resources for the preservation of Nh wildlife, not just game species, and the natural ecosystem dynamics at the highest level. The state, as stated by David Foster, chief forester from Harvard Univ, should not be in the "business" of harvesting and altering systems that were "never" and will "never" support the premiss around which they are trying to justify their management decisions. Private lands are open to logging and just forest practices on just 10% of them would support the forest

industry. Most easements have some logging parts to them to allow people/land trust to afford to keep them. There is again no need to harvest on my lands. The only reason I have seen in all my dealings with the state is for job funding. If the state would change this and other funding formulas then maybe the people that are charged with "protecting" our resources, forest, water, wildlife, lakes, fish, etc. would actually protect them instead of supporting practices of devastating them. (Motorized vehicles in natural areas, motorized vehicles on sensitive lakes, ponds, etc.) These practices may support some parts of our economy but in the long term, and I thought that was the charge of this commission-sustainability, they will have much to do with our ecosystem collapse.

Lastly with regards to #9, it has already been factored by some university studies that if we start trying to support our ever increasing need/hunger for electricity with wood electric generation our forest will be gone in ten years. Sounds too similar to the late 1800's and early 1900's when our forest ecosystem were reduced to 10-20%. And to repeat, with climate change and our need to sequester carbon dioxide, as well as support a healthy New England landscape we need to think more about conservation, and other options like solar, wind, solar, geothermal, and again solar to support future industry and economic progress. Let us be the leaders in the country for solar research and manufacturing and lead the country with new meaningful sustainable jobs in these markets.

Thanks so much for reading htis and with any hope I will be at one of the hearings to make sure these issue have been related to others on the commission as well as the public.

best, and thanks you for this work.

Thomas Sintros
16 Barnett Hill Rd.
Alstead, NH 03602

603-756-9002

Mr. Skoglund,
My name is Kathryn Fox and I am the Climate Organizer for Environment NH. As I am unable to make it to any of the public hearings on the Climate Action Plan, I wanted to let you know what Environment New Hampshire believes should be added to the plan.

We believe that New Hampshire needs strong, science-based national climate legislation that will provide significant pollution allowance revenues to help the state fund the clean energy, energy efficiency, and adaptation priorities that are now being carefully identified by our Local Energy Committees and by the state in its climate plan. A national climate cap and trade program can provide tax incentives and other funding programs to help fund many of the recommendations in the plan. We suggest that the Climate Change Task Force adopt this recommendation to be directed at New Hampshire's federal delegation.

Thank you and feel free to call or email if you have any questions regarding our recommendation.
-Kathryn

Kathryn Fox
ME and NH Climate Organizer
Environment New Hampshire
30 S. Main St. Ste 301
Concord, NH 03301
(603) 229-3222
kfox@environmentnewhampshire.org

Thank you for considering my comments of the **New Hampshire Climate Change Policy Task Force Action Plans.**

Sincerely,
Jennifer Risley
86 George St.
Keene, NH

Which of the potential actions under consideration they feel are most promising and why:

I find the actions promoted by the Agriculture, Forestry, and Waste Working Group the most promising. Not only will healthy farmland and eating combat climate change, but it will create a safety net from the effects of peak oil. I am participating in a citizen-based initiative, called Monadnock Farm & Community Connection - a Keene-based group sponsored by the Cheshire County Conservation District. Not only are we working to strengthen the food system of the Monadnock Region to combat climate change and peak oil, but we are also building community. Our community is connected through the food we eat and our pursuit of health for all.

What additional actions the Task Force should also consider:
Creating Transition Towns (see "The Transition Handbook" by Rob Hopkins: "...The Transition Town shows how the inevitable and profound changes ahead can lead to positive outcome.")

What they feel are the best means to implement these additional measures.
State-wide trainings

Hi,

I was so impressed and relieved when the NH Climate Action Plan was released/proposed awhile ago. I thought, NH is ahead of the curve - with our UNH taking steps to save money and be prepared, and now our state doing the same, we'll be sitting pretty in the future.

And now I hear that the old money old power old school is doing all it can to force the Task Force to step back

I'm writing you to let you know that some citizens out here would like you to stick with the NH Climate Action Plan and not let it get diluted. I think it's a bold smart guideline, especially with the current
volatility.

Thank you,
Nancy Rideout
6 Bashan Hollow Road
Webster, NH 03303

Hi Mr. Skoglund,

Could you bring to the Commissioner's attention our recommendations with respect to curbing climate change in New Hampshire?

1. Institute a NH Challenge following the example of the Vermont Challenge which starts Oct. 1.In this program, schools achieving the smallest carbon footprint will win special recognition.

2. Establish a state mandate for municipalities to provide tax relief for residents installing and using alternative sources of energy, especially wind and solar power.

3. Mandate that all new state buildings meet the LEED standards.

4. Establish a state mandate against vehicular idling.

5. Initiate and strengthen state support of an efficient rail system, both passenger and freight.

Thanks you for your interest,

Robert and Audrey McCollum
POB 187, Etna, NH

Dear Chris:
I have had one cataract removed but need a second before I can drive at night safely or legally. Since I can't attend the listening session tomorrow night I wish to submit the following comments:

a) **EGU Action 2.1 – Renewable Portfolio Standard (RPS**)
I am disappointed in the draft plan as presented. The lack of information such as the required resources and barriers to address indicates a failure to seriously address the opportunities here. I think the Legislature is also involved in that it can create incentives for using alternative sources such as solar panels.

b) **TLU Action 1.D.2 – Address Vehicle Idling (page 33)**
In the transportation report, economic effects for stopping idling of trucks should also be attributed to local governments (road departments, fire departments, abulance services, school buses).

c) **TLU Action 2.B.1.b – Improve Existing Local/Intra-Regional Transit (Bus) Service** and **TLU Action 2.B.2.e – Expand Park-and-Ride Infrastructure**
Plymouth State University has bus service from parking lots also. It was not mentioned. Using a portion of one of those lots could be a way to establish a Park-and-Ride location to get a bus or share a ride.

FYI-my husband and I started driving no faster than 55 miles per hour in June. We are getting 50-100 more miles per tank of gas in our Honda Civic as a result. Thanks to everyone for all the work done.
Sally Davis
PO Box 1413
Campton NH 03223
726-3775

Chris,

Was present last night. I'm mulling over all I heard from you and attendees and want to have a bit of time to put together some thoughts and ideas. What would be your committees deadline for this. Just would like to have a bit of time.

Underwhelming attendance, eh? I was very surprised at the low number of people there. But some great comments from some folks that were there.
I'm glad I attended - got the juices flowing again for this pressing issue. I was one of Toby Ball's first recruits for the Town Meeting Campaign. But being raised more or less apolitical as you, the whole thing was a huge leap on my part - and afterwards I had to retreat to breathe and feel centered again. (kinduf like an agnostic retreating from an Christian Evangelical event)

Anyway, let me know deadline for feedback, and thanks for your and the committees great efforts.

Rachel Courtney,
Dublin, NH

Hi. Thanks for organizing these sessions. I had planned to attend the Gorham event, and now will not be able to. Would it be possible to provide my comments to the task force members?

I write as a founder of The Jordan Institute, organizer of the NH Integrated Design/Integrated Development conferences (with American Institute of Architects/NH CHapter), and a long time member of the Deerfield Planning Board and Conservation Commission.

THank you for hosting these sessions. Two ideas to consider:

(1) Move to action sooner by using what's already in play: Much has changed in the world of understanding climate change over the past twenty
years. We have gone from "what's happening?" to "so what now?". Two
initiatives among the many seem to provide the focus and leadership we need right now. The international organization "350" (at www.350.org) and Architecture 2030's 2030 Challenge (to make all buildings carbon neutral by 2030) are based on the most recent science, and provide clear action steps for all.

(2) Call for a "Marshall Plan" for existing buildings: There is an opportunity to provide at least a generation of jobs with the low tech, high touch needs of renovating existing buildings. I am sure you have heard this concept from others, so I will emphasize the fact that most buildings can reduce their energy needs by 30%-60% with low cost practices such as air sealing, insulation, adding passive solar gain (winter) and shading (summer), and landscaping to reduce heat islands.

THanks for your consideration.

Katherine Hartnett
Deerfield and Berlin, NH

Bob Morrison
RHmorrison@aol.com
My comments on Transportation and Land Use section of Climate Change Policy Task Force document

Re Action 2.A.5 – Increase the State Gasoline Tax (by $1 or more). There are some more reasons, not stated in the document, why I think this isn't feasible: 1. We would have to do this in sync with Massachusetts, or else gas stations in NH near the MA would lose a huge amount of business due to customers going to MA to buy gas, and some of them would have to close. 2. This would impose a large expense on most businesses, which they would have to pass on to their customers in the form of higher taxes.

I'm in favor of increasing the state gasoline tax by .20 to .50, but I don't think a higher increase would be feasible.

Re Action 2.B.1.c – Expand and Improve Bicycle and Pedestrian Infrastructure: There is an important component of this, which you didn't mention. That is to build rail trail bikeways where abandoned railroad rights of way exist in places where there would be enough use to justify the cost. However, I don't recommend building bikeways on abandoned rights of way on which passenger rail might be restored within the next 10 years. And example of this is the rail trail bikeway they built in 2006 in Windham on the Lawrence and Manchester RR right of way. This route is being considered for passenger rail, and having both passenger rail and a bikeway on the right of way is probably not feasible. This means they will probably have to take the bikeway out of service if there is passenger rail, and this means there will be a lot more opposition to passenger rail on this route.

Re Action 2.B.2.a – Maintain and Expand Passenger Rail Service: There is an error here: The item implies that there isn't any freight rail in NH except on the Downeaster corridor. This is false; there are lots of freight-only rail corridors in NH.

Re TLU Action 2.B.2.b – Maintain and Expand Freight Rail Service: Much of this is a repetition of the previous item, and some of the repeated text is false. For example, you say the NHRTA will help with this action, when in fact they have very little to do with freight rail. Acquiring land and changing zoning also have little to do with freight rail. These are specific to passenger rail.

The item also repeats the false statement that there isn't any freight rail in NH except on the Downeaster corridor.

Re Action 2.B.2.e – Expand Park-and-Ride Infrastructure: There is an important fact that is missing here. That is that there is a conflict between providing intercity bus service at park and rides on the outskirts of cities, where you can more easily provide parking, and providing it in city centers, where more people can walk to/from their origin and destination and where more connections to local transit are available. Intercity bus companies are usually unwilling to provide service to both the city center and the outskirts of the same city. Therefore, we should encourage intercity bus companies to continue serving, or resume serving, city centers.

Re Action 2.B.2.g – Expand Inter-City Bus Service (to new routes): I recently read an article in a national magazine that was written 1-2 months ago, long after this document. It says intercity buses are becoming popular again, due to higher gas prices and the hassles of air travel, and that many people are riding buses who wouldn't have considered doing it a year ago. We in NH should harness this new popularity.

Also, we badly need bus service between the Seacoast Area and Manchester. By this I mean Manchester itself, not just the airport. I think this service would be economically feasible if there was a small operating subsidy from the state.

Dear Chris:

The "Department's" environmental programs for the public should reflect more science than political aspects now presented, except those working in the science sector.

The "State" should indicate, atleast, there are differences on the subject of gasses etc. and other claims that "political" presentations indicate a need for "action".

There are several sysems now working that are our energy sources to tap for the future, sothe focus should be on devloping new industries in regards.

Electromagnetics, in our atmosphere, should be the next field for the protection of the public by the "state".

Sincerely

Robert P. Burke
nhcrev@yahoo.com

Dear Mr. Skoglund:

The NH Division of Historical Resources has drafted two of the Task Force policy recommendations, "**RCI Action 1.7, Building Conservation and Sustainable Communities as Instruments of Climate Change Policy**," and "**RCI Action 1.8, Conserving Embodied Energy in Existing Residential Building Stock**." which are included with the other RCI (Residential, Commercial and Industrial) reports.

As a practicing community and preservation planning consultant and resident of New Hampshire, I wish to voice my support for inclusion of these two reports in the final draft, which aptly address the crucial links between conservation of the built and historic environment, with our collective efforts to affect not only meaningful, positive change in the further development of state (and federal) climate change policies, but also for constructively altering wasteful patterns of human habitation and energy consumption as manifested in our archaic, sprawl-based land use and transportation systems, and inefficient use of natural resources in the manufacturing – waste stream continuum.

There are numerous organizations in this state which are eager, willing and capable to help press this agenda forward, and speaking on behalf of the interests of the built and historic environment, I hope you will consider the valuable input which can be offered by the NH Preservation Alliance, the NH Planners Association, the NH Downtown Center, the NH Historical Society, as well as the NH Division of Historical Resources.

Thank you for incorporating my comments into the record of the Task Force's critical work on this subject.

Sincerely,

Christopher W. Closs

Christopher W. Closs
Christopher W. Closs and Company
P.O. Box 530
Hopkinton, NH 03229
Tel./Fax: 603 746-4789
clossplan@comcast.net

Dear Christopher Skoglund and Tom Burack,

I am the chair of the Brentwood Energy Committee. I attended the meeting on Sept 16th in Dover of the Energy Coalition. We were asked to send our priorities on the NH Climate Action Plan. The committee has been interested in energy audits on homes and on building more energy efficient sustainable buildings. We have tried to work with other small towns in the area to bring speakers and programs to the area.

I have long been an advocate for Solar energy and built a passive solar house in Massachusetts in the 1980's that worked very well. One of our committee members installed solar panels on her home and business last year even without rebates and that is working very well.. I recently have learned that Connecticut has encouraged solar power and offers a rebate on residential pc systems with capacities up to 10 kw (from All Green magazine) . They have a large volunteer organization, www.pace-cleanenergy.org that is encouraging this. They offer a free copy on line of Connecticut Consumer's Guide to Solar Home Building and Remodeling offered through the State of Ct. Strategic Management Division. Not only do these programs offer an alternative to expensive oil consumption but the programs provide employment to those in the business of making and installing panels.

Brentwood is in need of a new fire house. The town has turned down 2 very expensive designs twice now so at the moment the fire house is in a rented building that is old and not big enough. I would hope that any new municipal buildings in NH should be required to have an energy efficient guideline with some sort of renewable energy to replace the expensive cost of oil and gas.

Our school has done a 60 page energy audit which I will check out soon. Our other municipal buildings are fairly new and modest. What is very unsustainable is all the new oversized residences being built in the area. I think the owners will be needing help to cut their energy use and I hope that the state will be providing them with the help that they will need. A good program for Solar energy would be a great help to all of us.

Sue Jones chair
Brentwood Energy Committee

To: New Hampshire Climate Change Task Force
From: Barbara McIlroy, 1 Hayfield Road, Etna, NH, 03750 (603-643-5844)
Date: September 29, 2008
Subject: **Input for the NH Climate Change Action Plan – Stormwater Runoff Reduction**

Large storms are more frequent, as we observe here in New Hampshire and in the news. Some note that the old 100-year storm is now occurring at the frequency of a 25-year storm, and the old 25-year storm event is occurring every 5-10 years. Clearly, climate change causes more frequent and stronger storms in NH.

The following comments probably apply to the Task Force's report titled *Adaptation* (Action 4: Protection of NH Natural Systems – hydrology), and also the report titled *Residential, Commercial and Industrial* (where a new section on functional landscaping could be added).

The retention of stormwater on site will help reduce the impacts of climate change. One of the most effective[1] and simple (when done correctly) measures to retain stormwater on site is bioretention, which results in an attractive and functional landscape feature. This approach, called Low Impact Development, has many other attractive and excellent practices that keep stormwater where it falls. Reduced runoff will:

- ***Reduce the effect of stormwater runoff, protecting stream channels and reducing flooding.***
- ***The use of bioretention and other infiltrative measures (such as porous pavement) will help maintain and recharge groundwater levels, as well as slow stormwater and reduce pollutants in the water.***
- ***The capture of stormwater in bioretention areas will provide a truly multi-purpose landscaping function, including water retention (<u>not</u> detention) and aesthetics.***
- ***This approach seeks to avoid the concentration and collection of stormwater, saving the need to enlarge culverts and other infrastructure.***
- ***For climate change impacts, bioretention measures (which require many plantings) will help reduce heat island impacts.***
- ***Bioretention measures are an 'urban' means of replacing some portion of the climate function that forests serve, such as transpiration (otherwise lost in the clearing done for construction)***.

A further argument supporting this practice is contained in the LEEDS certification checklist for sustainable sites has the following credits related to stormwater (1 point each – of 14 total points) and associated 'green' construction practices:

Credit 6.1 --- Stormwater Design, Quantity Control (= Volume)
Credit 6.2 ---Stormwater Design, Quality Control
Credit 7.1 --- Heat Island Effect, Non-Roof
Credit 7.2 --- Heat Island Effect, Roof

I urge the Task Force to take a look at the new stormwater rules now in review for the DES Alteration of Terrain Program, and reference them in your report. The problem is that these rules only apply to fairly large projects and will be a long time in altering the traditional approach to construction (excessive clearing).

[1] See the annual reports from the UNH Stormwater Center that compare the effectiveness of various stormwater management practices.

However, if stormwater retention (not detention) is added into local building codes, we will go a long way towards changing our construction practices that lead to acres of relentless and unattractive pavement. There should be less disturbance of native vegetation, where retention of large trees and reduced lawn is encouraged. For retro-fits or small projects on house sites, the bioretention measures are called 'rain gardens' – non-engineered small gardens can be designed to capture and infiltrate storms.

I am convinced that this approach will help reduce the impacts of future storms, and hope that you agree that it deserves mention in your Climate Change Action Plans.

Christopher,

I was unable to attend the public sessions due to conflicting meetings, but I would like to give some input.

I live in Acworth which is in Sullivan county. I live close enough to the Lempster Wind Farm project to see the progress on an almost daily basis. I have to say I am very excited and proud that the project is happening in NH and within a few miles of my home. I think we need to encourage wind energy as one of the best renewable sources of clean energy. An education program that gives the public real, truthful information with regard to the pros and cons of wind turbines is a good first step.

When it comes to alternative energy we need to encourage a new philosophy - something like pimba - please in my back yard. I know that is not always a popular view but it is time we tried the approach of really rallying the people around solving the oil energy dependence problem. I think we're reaching a time in this country when we will be forced to really do something about energy from various points of view - climate change, security, economic.

Perhaps the task force could arrange for some kind of public tours of the Lempster Wind Farm after it is up and running. The task force should also work to gain support for the wind farm proposed for Coos county.

Sincerely,
Susan Paton

September 27, 2008
Thomas Burack, Commissioner
Department of Environmental Services
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095
Commisioner Burack:

We're writing to you to submit our comments on the Climate Change Action Plan Draft Action Reports.

As a committee we feel the recommendations in this plan will be vital in establishing how New Hampshire moves forward with setting priorities for improving energy efficiency and reducing greenhouse gas emissions. The issues which need to be addressed in this plan will have a major impact on the quality of life and economic well being of the State.

As you might expect, as a local energy committee (LEC) we are very supportive of the movement to establish local energy committees across the state, and we read with interest GLA Action 1.4 entitled: *Provide for the Establishment of Local Energy Commissions*. However, we feel that Action 1.4 does not provide enough direct support from the state. To date the level of state support for the nearly 100 LECs across New Hampshire has been minimal, and we feel the language of Action 1.4 does not provide for enough state resoures to support the important work of energy committees.
We urge you to include more specific recommendations in three major areas which should be further expanded upon as planning moves forward:

● **Organizational Support** – The state should act as a central clearing house of information for how LECs are established, what their charters consist of, and how they go about accomplishing stated goals. Given the high level of participation already exhibited by communities it would be appropriate for State Government to employ personnel who could act in an advisory and consultative capacity to these groups.

● **Technical Support** – Two aspects of technical support would be appropriate. The first would be establishment of an information infrastructure to assist with organizational support, dissemination of information, and cross-pollination of ideas across groups. Second would be assistance from departments involved with establishment and enforcement of building codes to assist towns with technical issues which will arise as they try to define local policy.

● **Financial Support** – Though volunteer efforts will be the core means by which LEC are maintained, in order for them to be effective in reaching their goals some level of funding beyond what may be locally available will be essential. Providing technical and organizational support will be very important to the success of local energy committees. Organizational support will help energy committee members focus on the real work that needs to be done, instead of reinventing the wheel getting off the ground and interfacing with municipal government. Technical support and training are needed so that members can become trusted community resources for energy-related questions.

Another related area where we feel the draft recommendations could be expanded is the area of supporting local building inspectors with the tools they need to evaluate a new building's adherence to energy efficiency standards. In many cases existing building codes and regulations already contain wording which implies certain levels of performance consistent with modern building practice. Unfortunately it is generally beyond the resource capability of most local

building inspectors to determine if these levels are attained. In order for residential and commercial customers to make a reasoned purchase decisions it is essential that this information be made available as part of the inspection process.

We appreciate your consideration in this matter.

Sincerely,

David Weingart
Chair, Barrington Energy Task Force
2 Boulder Drive
Barrington, NH 03825
(603) 664-5113
dweingart@pobox.com

Mr. Burack,

I am writing on behalf of the Energy Committee of Sanbornton, New Hampshire, for which I am the chairperson. I urge you to support the **New Hampshire Climate Change Policy Task Force Draft Action Report.** With the federal government wrapped up with an election and a financial crisis, it seems that concerns over the looming climate crisis have been put on the back burner in Washington. Time is running short, if anything is going to be done regarding reversing climate change, we cannot wait for the federal government-- action must be taken on a local grassroots level; whether that action is educating the public, energy efficiency upgrades, energy conservation, or switching to renewables.

This is why it is imperative that you support this plan. Local energy committees have the passion, the knowledge, and are willing to put forth the effort to make real change happen, and by having the full support of the state government behind us, we will also have the necessary credibility to meet with residents and legislators in order to help enact policies that will work for New Hampshire and for our global environment, and if done successfully- set an example for the other states to follow.

Energy committees are a great untapped resource! We are relatively new organizations that have already made significant changes in our communities. We have actively campaigned to sign residents up for the New Hampshire Carbon Challenge, we have worked with schools to invest in installing wood burning biomass plants, which will help keep money in our local economy, create jobs, and reduce carbon emissions. We have worked with utility companies and town government to do energy upgrades on municipal buildings, and we have done outreach programs with local schools and at town events to educate people on how they can save energy and cut carbon emissions.

We have many other ideas that, with State support, could be enacted. If we want New Hampshire residents and our federal government to get serious about climate change and our energy crisis, then we have to show them that ***we*** are serious about it. We can do that by supporting and expanding upon this plan. Don't miss out on this opportunity! You have a great number of people who are willing to roll up their sleeves and get things accomplished, and this plan will help us do just that.

Ian Raymond
Chairman, Energy Committee of Sanbornton

(603) 524-4130

Chris:

Some thoughts and ideas for the Action plan:

Adaptation:
Direct effects from climate: No one knows for sure how climate change will play out in the Northeast (short, middle and long term). Woods Hole is studying a concern about it getting colder here - the melting greenland ice sheet water affecting the gulf stream for instance. My point - focus on the effects we are clearly currently experiencing - such as increased precipitation and intense precipitation events - flooding. And appoint a long term committee/group to continue to be in close contact with folks in the science community who are studying the unfolding - so as to advise the state on adaptation.

Agriculture, Forestry & Waste:

Agriculture - Many of us live a fast paced life. Going to a farmer's market (for instance in Keene) on a Tuesday during working hours, or on a Saturday when we are miles away and need those precious Saturdays and Sundays to take care of our kids and home needs - farmer's markets just doesn't cut it for alot of folks. Nice idea for the retired, independently wealthy or at home moms - but not practical for the common person. With all respect for Bill McKibben's hopes to return to the pace of the olden days and slow food ideas - I'm doubtful life is going to slow down. SO, let's support our local food growers as much as possible, and help them get as much of that locally grown food as possible into our local grocery stores (without the farmers losing their profits) and where the majority of us can support them by shopping for their produce when we are doing our weekly shopping. Not sure how you would do this. Perhaps legislation that grocery stores in NH need to carry a certain percentage of locally grown food and with profit protections for the farmers in place as well?

Forestry - I am very concerned about the overcutting of our public and private forests. Wood used as fuel is a decent stop-gap for us, but we can't let this get out of hand, on public or large tracts of private land. Could this be mitigated, to some degree, at the local level with a reasonable CO2 tax levied on cordwood and sawtimber using the current timber tax reporting and collection program? Burning wood puts CO2 in the air, cutting trees for development, sawtimber and cordwood reduces our forests CO2 storage capacity and the cooling effect of forests in summertime. I can't believe the growth of our forests is keeping up with the amount of and negative effects of our land clearing/harvesting. Even folks cutting more than 3 cords of firewood on their own lots could pay a small carbon tax. The towns would turn in these taxes to a state fund earmarked for clean energy programs and forest reclamation (jobs?). If not done already, state could set a standard for emmissions on all new woodstoves and wood burning apparatus, and set up a required woodstove inspection program to check for emissions on used woodstoves to identify those that might need to be upgraded or replaced (and funds could made available to do this for low income households using revenues from the CO2 Timber Tax idea mentioned above).

Electric Generation and use:
Not sure how practical small/local hydro is - but there's plenty of water in NH, and more as of late. Check out in West Peterborough NH a condo building using Nubanusit brook for power. Encourage (provide incentives for) this if it is practical and financially viable!

My husband sometimes visits France on business. They have a great system in the hotels and motels. The key card which opens your hotel room door, also has to go into a slot to activate the

lights etc. in the room. You have to take that card out when you leave, therefore leaving no lights on! Require this of all new hotel/motel construction, and provide incentives for existing lodging facilities to install this system. What a savings this must be.
We light up our night in public places to a fault. Study what really needs light. Set standards on night lighting in unused public places and offices - with consideration for security. New installations of street and public lighting could be required to be solar.

Residential Commercial and Industrial:
Utilize Americorps (or other well organized volunteer programs) for weatherizing low income homes, targeting those first who are receiving fuel assistance, then broaden to other low income folks who need assistance in improving their energy use.

A broadreaching education and incentive program to help and encourage businesses and homeowners to reduce their energy consumption. Target a handful of the most wasteful issues that could be addressed without too much investment of money and time, and that would, if committed to by a majority, result in a significant lowering of CO2 emissions statewide.

Transportation and Land Use:
To reduce impact/use of oil and gasoline: strictly enforce highway speed limits (remember the oil embargo?, we can do this again), tack a CO2 tax on speeding tickets, replace traffic light intersections with rotaries, phase out any and all drive-up windows, allow yielding left turn at green lights, have schools implement policies that children ride busses to and from school unless cleared by administration (way too many parents are ferrying their kids to school because Johnny pulled Sally's pigtail on the bus). They could beef up bus monitoring to help with behavior issues, and do all of this in the name of conservation which I think families would respect and find meaningful. Add CO2 tax on all new luxury petrol burning items (cars with high emissions, trucks not owned by businesses, boat motors, snowmobiles, ATV's etc.). Tax these items at time of registration, keeping it out of the hands of retailers. Small CO2 tax added to NH highway tolls. Make sure NH highway toll booths are designed/manned in a way that reduces waiting and idling during heavy traffic periods. The need to improve the state public transportation system goes without saying - but where I see the most need is enabling folks in outlying towns to get to larger towns and NH cities via public transportation (electric busses and vans - we dont need high speed vehicles for this.)

Government Leadership and Action:
People and businesses don't like costly and time consuming mandates and additional taxes. So....our Governor would be wise to, with a planned public speech/statement, appeal to the NH citizens for their cooperation in implementing the action plan. He'll need to tell folks that it is imperative that we pull together as a state to address our demand for energy, the negative effects of using fossil fuels, and the imminent depletion in reserves of these fuels that we now depend upon. I think that this will be extremely important. Also, there's an element of just tricking the general public into using less fuel and reducing CO2 emissions with rotaries, less drive up's, hotel electric light keycards mentioned above, enforcing highway speed limits etc etc.

I've run out of steam.
Thanks for opening this up for public input, and your time and consideration of our input.

Best,
Rachel Courtney,
Dublin, NH

NH Dealers Oppose Multi-State Fuel Economy Rules

The New Hampshire Automobile Dealers Association is a state based trade association made up of over 550 businesses, across the spectrum of the motor vehicle industry. We employ over 13,000 citizens and make up ¼ of the states retail sales.

New Hampshire should not adopt the California tailpipe emission standards (Cal-Lev) and TLU Action 1.A.3 of the Draft Action Report for the Climate Change Policy Task Force for the following reasons:

<u>The EPA has denied California's waiver request to establish their own fuel economy/emission laws meaning that adopting the Cal-Lev standard is currently legally forbidden</u>

<u>Strong federal action was taken just last December regarding tailpipe emissions</u>

- CAFE standard increased by 40% to 35 MPG by 2020.
- Proposed Federal rules set more aggressive target dates to achieve Greenhouse Gas (GHG) reductions: Fleets average 27.8 mpg by 2011 and 31.6 by 2015. That's 35.7 mpg for passenger cars in 2015 and 28.6 mpg for light trucks
- This new law will reduce GHG by 30%.
- Tailpipe or mobile CO_2 emissions are already closely regulated on the federal level unlike stationary sources (which is why RGGI was necessary).
- A varied patchwork of state vs. federal regulations is not the most efficient approach to governance and business.
- Cal-Lev is a fleet based standard depending on the numbers of specific types of vehicles sold in that particular state and their tailpipe emissions of CO2. The only way to control CO2 emissions from vehicles is by increasing their fuel efficiency.

<u>NH is already cleaning up its cars</u>

- OBD-II law has only been mandatory for 9 months and already over 60,000 vehicles (8%) have been rejected. Let the OBD-II rules work.
- New cars are clean cars. Each year manufacturers are creating cleaner cars with higher MPG and fuel efficiency.
- Granite State Clean Car Program (stakeholders: NHADA, DES, DOT, AMC, Breathe NH) encourages people to purchase clean cars since 2003.

<u>Fewer consumer choices, increased costs and market uncertainty</u>

- Decreased vehicle choice and increased vehicle costs will harm businesses and residents. This has happened in other states.
- 87% of people who purchased a pick-up truck in 2006 used the truck for hauling and 80% used the truck for towing or trailering.
- NH already sells fewer trucks (53%) than Maine and Vermont (59%), both of which have adopted CAL-LEV.
- Each state will need to determine what vehicles can or can't be sold each year. This will increase budget costs and dramatically affect what dealers can or cannot sell each year or month.

California's standards are all or nothing. Once the unelected board in California makes changes to the current rules, NH must join in regardless of how detrimental to NH.

- Three lawsuits are currently pending regarding California's attempt to adopt CO_2 standards because they affect MPG standards, which are pre-empted by federal law.
- The NH DES admittedly states that adopting CAL-LEV will create an increased work burden and costs at the already stretched state government and regulatory agency level.

Hello Mr. Burack,

As a member of the Rye Energy Committee, a green blogger, an intern at Clean Air Cool Planet, I'm writing you to let you know about what I consider the priorities for the Climate Policy Task Force. I have attended two of the forums so far, both the event at UNH on the Governors Task Force, and a more recent event at the Seacoast Science Center. The work that you have outlined for the task force is broad, and I strongly admire the effort that the working group has put into this initiative. It is at the state level that we must now consider strengthening our policies, and I hope that the recommendations made to the Governor are bold and implemented.

My priorities specifically lie with strengthening state support of local energy committees. I am currently working directly with Clean Air Cool Planet and the Carbon coalition on creating a stronger framework for Local Energy Committees statewide, both creating a stronger support network, and advisory group, and a framework for implementing energy and cost saving initiatives within each town in New Hampshire. Our team certainly works hard, but it will be crucial to have support at the state level in order for this to work as efficiently and widespread as possible. We need the state to really identify tangible ways to get these initiatives going, and look at state budgets in terms of longer budget cycles in order to provide for more energy efficient technologies which while more expensive up front, will provide larger cost savings over time. We need the state to invest in sustainable technologies. We need the state to create goals for the legislature, the government and state agencies, and the private sector.

My concerns with climate change have increased as I have become more informed, but my true interest lies in the welfare of the people of New Hampshire and our communities. Supporting Environmental initiatives at the state level, and creating a master plan for Sustainability are crucial for all of us citizens of New Hampshire.

I truly hope that these recommendations are not just summaries, but provide tangible steps for action, implementation, and adaptablity. Finally, my last hope is that you continue to get citizens involved in this work. Work with the energy committees. Work with the Carbon Coalition. Work with CA-CP. Work with the University students. Encourage creativity.
I hope to hear more on this issue, and wish you (and us all) the best of success with this very important project.

Thank you for your time,

Samantha Tackeff,
Rye Beach, N.H.
Commissioner -

Thank you again for taking the time to come to Lebanon and solicit comment for the Governor's Task Force on Climate Change.

I just want to add a few things for the Task Force to take into consideration. I'm sure you've heard them all already, but just in case:

For NH to stay engaged in the New England Governor/Eastern Canadian Premier Climate Change meetings that occur on an annual basis, and to pursue appropriate legal actions.
For NH to fund our portion of the Boston to Montreal High Speed Rail Feasibility Study. I had heard on the news relatively recently that NH was no longer supporting this study. I would think rail and other forms of mass transit would be one of the most important vehicles (no pun intended) for reducing carbon emissions and assuring affordable transportation for people going to work or simply moving place to place. On a good working week, my carpool of 9 is able to eliminate @40 round trip car trips going from the Upper Valley to Concord.
For NH to enforce no-idling of school buses, trucks and cars.
For the State of NH, as one of the largest employer in the state, to provide leadership in the state (as the private sector is doing) and support alternative work schedules and working at alternative worksites (home or local/regional offices).
For state buildings to get serious about conserving. I'm part of a quasi green team at 29 Hazen for the DPHS part of the building. I don't know what will work, but we need something stronger than voluntary compliance with energy saving steps.
And as a factor in air pollution, for state campuses to be made smoke-free.

I look forward to the report from the Task Force. Thanks again for the work you're doing on this issue -

Lindsay

Lindsay Dearborn, M.Ed., MPH

NEW HAMPSHIRE ASTHMA CONTROL PROGRAM
Division of Public Health Services
NH Department of Health and Human Services
29 Hazen Drive, Concord NH 03301-6504
Tel: (603) 271-0855
Fax: (603) 271-8705
Email: ldearborn@dhhs.state.nh.us http://www.dhhs.state.nh.us/DHHS/CDPC/asthma.htm
http://www.asthmanow.net/

Given the State of NH is $200 million in debt right now, I strongly suggest you find other things to do with the taxpayers' money. Put this on hold until we're out of this current economic crisis. Global warming indicators are certainly ambivalent about the role man has played in this. They are beginning to get more unclear about whether this is happening at all, or if a simple volcanic eruption will negate all your efforts.
Please do not burden our taxpayers with more debt.

Kenneth D. Eastman
Selectman, Washington, NH.

Hello Joanne & Chris, THE NH CC Task Force RCI Action 1.5 establishes an Energy Properties Section in MLS Listings.

The NHSEA is conducting a Home Energy Conference on Sat. Dec 6 (UNH Durham); shown below is one of the workshops being conducted.

* * * *

Selling and Buying Green: the Marketing and Financing of Sustainable Homes
Kelly Cullen, UNH & Bean Group and others tbd
Buying and selling real estate can be complicated. This process can become more complex when buyers want to find environmentally friendly property, or when sellers want to highlight the green qualities of their buildings. This session will discuss new developments in Green Real Estate, from the impacts of LEED certification, and Energy Star ratings, to the EcoBroker movement among real estate professionals. We will gear this talk toward consumers and green builders who want to know the basics, and talk about what they can do to find or highlight the green characteristics of real estate.

Regards,

Marjorie Rogalski
Hanover Climate Protection Campaign

I read in the Monadnock Ledger that you are looking for input on reducing greenhouse emissions.
I think No Idling signs should be put to use pretty much everywhere they can be. ATVs and snowmobiles should be banned as well as all gasoline powered machines that are unnecessary such as leaf blowers and lawn trimmers.

Surely this would make a considerable dent in greenhouse gas emissions - and noise pollution.
Thank you.

Katrina Yurenka
Jaffrey, NH

Bad for the Environment:

Motorized travel
the Lawn Care Industry
mining
raising cattle
the Motor Sports Industry
non-recyclable plastics
war
deforestation
using potable water to dispose of bodily wastes
making babies
the Bush Administration
capitalism
ecological ignorance
Homo sapiens

R Devens
78 Maple St
Center Sandwich NH 03227
(603) 284-6877

Hi Chris,

I understand that DHR has submitted two recommendations to be included in the plan. I've read them, and I wholeheartedly agree with them and recommend their inclusion in the plan. It is exactly the stance we've taken in Keene and our Historic District Commission and Heritage Commission have supported the connection between historic resources and climate change for years.

Hope all is well with you!

Best,
~M

Mikaela Engert
City Planner
City of Keene
3 Washington Street
Keene, NH 03431

P: (603) 352-5474
F: (866) 690-8364

Dear Mr. Skoglund,

I would like to add my comments that I hope you will include the preservation of our historic buildings as an important component in your report. We in Keene are very proud of our community and its efforts to effect climate change. Anything that can be done to preserve our history at the same time is extremely important.

Sincerely,

Louise R. Zerba
Historic Commission Member
340 Pako Avenue
Keene, NH 03431

Hello,

How great would it be for New Hampshire to be in the lead coming to terms with climate change! I am on the Keene Sustainable Design Committee and look forward to the state to provide leadership in this most important area (Greener Building Codes, improving Energy Efficiency, support for Renewable Energy, walkable Cities, Public Transportation - Trains, etc).

Thank you so much for your efforts.

Regards, Hanspeter Weber

Hi Chris,

I know it's late, but I still thought I'd throw in my two cents just in case. I hope the Task Force strongly urges for more public transportation. Trains, while ideal, are probably a bit too expensive and burdensome logistically for a near term solution, so I would angle for more buses. The state would benefit from west-east routes, say from Portsmouth to Manchester/Concord and back. A NH101-I93-US4 loop might be good. Also, a frequent bus service between Concord-Manchester-Nashua is really well overdue and is a good short-term solution before rail gets going again. To help tourism in the mountains and commerce in the Seacoast, the Dover to Conway train route is a tourism boom waiting to happen By opening that, you directly connect the people of Boston to the White Mountains (via Downeaster and the new route)...that's a HUGE economic potential for the northern part of the state and any stops in between. And the track is already there, in usable shape, and in use by freight trains. Some logistical hurdles need to be met, but everyone would benefit from reopening that train route to passengers.

I have a lot more to say, but I'll leave it at that. I wish I could be more involved, but you know how it goes :-) Good luck and keep up the hard work.

EriC

Hi Chris,

I'm sorry I did not get these comments to you before today. I know the deadline was Monday. If you cannot incorporate them, I would certainly understand.

I did not get to the transportation section, but I hope to next week. I realize that will be way too late for return comments but I am curious. That sure is one long section.

Unfortunately, this has also been the week that Strategic Proposals for campus consideration were due and I've spent a busy couple of weeks researching and writing.

Have a great weekend,

cheers,

mary jensen
Keene State College
mjensen@keene.edu
603.358.2567

NH Climate Action Plan comments:

Under Adaptation:
Use of the ICLEA process to increase resilience to extreme weather events
Use information from the Jordon Group and the

ADP Action 3
Emergency planning would be a complementary group to include under parties responsible for implementation.

ADP 6
This noted tax incentives for energy reducing strategies

What about incentives for small solar systems, microhydro, wind, etc
Incentives for individuals, banks and insurance companies

Under Agriculture, Forestry and Waste

Composting and food waste management is not addressed. Other states, including Vermont and Massachusetts have done extensive work to address that component of the waste stream very successfully.

The State could do more to promote the use of products made from recycled materials, increasing the demand and completing the cycle.

How about a Zero Waste (or darn close) policy

Bottle Bill?

Bioreactors may have a place but reducing, recycling and composting need to be more fully addressed.

PAYT programs could be successful especially if paired with a bottle bill and organics composting opportunities.

EGU section:
General comment:
What about smaller scale projects where the distribution is local instead of over distances. (due to high losses during transmission)

I personally dislike the use of nuclear. The discussion of the lack of greenhouse gas emissions completely avoids the issue to radioactive materials stored for almost infinity somewhere AND the effects of mining uranium on the environment and the workers.

Government Action

GLA:
General Comments:

Reminder that "savings" or reductions might not lead to cash savings at this point due to higher prices.
What about the issues for state organizations that separate the capital costs from the operating costs. This method often leads to lowest first cost which often leads to higher operating costs.
Management of heat loads for computer equipment has some new opportunities to help mitigate the problems in server rooms while saving energy.

Pg. 12 #2 b. should be whether not weather

Perhaps part of the EMU should be to a develop toolkit for LC.

GLA Action 2.1 Apply high performance…

Require commissioning
Consider requiring re-commissioning (listed under existing, but not under new construction)

GLA 2.2

Pg. 19 summary

"ensure that the build*ings*(?)
Pg. 19 #2:
Create a working group to ***bring*** development a stringent

GLA Action 4.1.1

How about Zip cars
Shouldn't budget managers already be doing these things – managing mileage and working with their drivers to be most efficient? Why should the EMU be responsible?

I see composting at feedlots as a natural gas opportunity. It would make sense to have a discussion about large scale composting in general.

GLA 4.2.2
Why not the state fleet manager developing policies instead of the EMU – which might just verify compliance, track efficiency and education.

GLA 5.11
Anti –idling – fleet managers should do this and be rewarded for performance improvements. Idling can be tracked.

GLA
Recognize that most state construction is actually renovations not new buildings.

Residential, Commercial and Industrial

RCI 1.1
How about tax incentives
Insurance incentives for better built homes
Better loan rates
Better insurance rates

Potential for implementation section:
Opportunity to use Voc-tech and technical colleges to develop skilled workers in EE areas. This should be integrated into all curricula that relates and not limited to the Tech. school up north.

Love the RCI Action 1.5
Adding energy to MLS's site

Hi Tom,

As the chairman of New Hampshire's Climate Change Policy Task Force, I thought you might be interested in this order by Hawaii's Public Utilities Commission, which institutes a fast track investigation on the design of revenue decoupling mechanisms for the three Hawaiian Electric Company (HECO) utilities. In a Sept. 8 2008 draft action report the EGU states that "under full decoupling, it may be necessary to provide for revenue increases over time through a rate plan that includes adjustments for inflation or other factors, or that uses projected costs for a future annual period for the purpose of setting rates". While this is true, revenue adjustment mechanisms that provide full attrition relief have to date been confined to California, New York, and Vermont (as well as british Columbia and Ontario
in Canada).

HECO has entered into a settlement with Hawaii's Consumer Advocate to accelerate demand side management and renewables investment and to operate under decoupling. The revenue adjustment mechanism will provide full attrition relief over a multiyear period and be "based on cost tracking indices such as those used by the California regulators for their larger utilities or its equivalent and not based on customer count" (p. 3). A separate tracking mechanism is envisioned to recover the cost of the sizable investments in transmission facilities that will be required to support renewables.

Pacific Economics Group is the leading U.S. advisor to electric utilities on alternative regulation. I manage the Madison office of PEG and am advising HECO on decoupling in this proceeding. My work has included the development of a variety of mechanisms for providing full attrition relief. If the plans are approved, they will constitute the eleventh, twelfth, and thirteenth approved decoupling mechanisms for which I have prepared supporting testimony.

Revenue decoupling has increasing appeal for U.S. electric utilities in an era of slowing volume growth and increased policy emphasis on conservation. Various approaches to decoupling have been developed that can accommodate the situations of almost any utility, including those contemplating major plant additions.

Please give me a call in the near future if you would like to discuss
decoupling issues.

_____

Mark Newton Lowry, PhD
Managing Partner
Pacific Economics Group
22 E. Mifflin Street, Suite 302
Madison, WI 53703
Office: 608.257.1522 ext. 23
Cell: 608.345.5251

Chris,

I saw an article about an audit on the NH state fleet and wondered if these new findings will be incorporated into the Climate Change Task Force policy recommendations.

When considering that the state has more than 4,200 vehicles and the towns/cities may have another thousand vehicles, perhaps it is time for mandates that those vehicles (where applicable) are changed to hybrid (and electric when available). Can the recommendations have that much teeth?

Roger Lohr

Chris Skoglund,

I appreciate all the efforts made by the Task Force to research and prepare this compendium of Climate Change Policy recommendations for the NH Government.

I look at this Plan with 2 sets of glasses; as a NH resident, and as a business owner.
As a resident, I agree with all that has been done and recommendations compiled [except as follows]

As a business owner, of a vehicle conversion business [www.converdantvehicles.com], I have a particular viewpoint to GHG solutions that is not well reflected in the document. I hope you will agree that my business objectives are quite supportive of the Task Force's goals, and that encouraging small businesses like mine is a worthy topic for inclusion in the Plan.
I specifically reference the Transportation and Land use section of the Plan. And I specifically suggest that consideration be given to encourage/include small and aftermarket companies to help with attainment of GHG and other Climate Change Policy Task Force goals.
The CAFÉ and Heavy Duty sections are dominated by Federal Regulations and oversight, so might not be suitable for local actions.
The CALEV section allows State-level oversight of emissions standards, using California's policy guidelines. In this section, I request specific consideration and policy recommendations be included that acknowledge and encourage vehicle aftermarket improvements to the vehicle emissions profile. Specifically, I suggest that any incentives that are applied to new vehicles also be applied to aftermarket upgrades. If an upgrade improves a vehicle's emissions profile by some percentage, that any incentive available for a new vehicle purchase [reflecting similar emission/mpg improvements] be available to the purchaser of the aftermarket upgrade. Such incentives being mentioned in the current Plan might include; tax credits/rebates, fee changes, Point-of-sale incentives, fleet purchase requirements, ZEV and pZEV mandates, GSCCC grants, and anti-idling.

With respect to the coming linkage between transportation and the grid, I would request that smart-grid adoption, with time-of-day and real-time rate structures, be made available to all rate payers at the earliest feasible date, and that this action be considered a high priority.

Thank you for your consideration.
Randy Bryan
ConVerdant Vehicles

Hi Chris,

A long process, no doubt about it.

I finally had a chance to read through the Transportation and Land Use piece of the puzzle. I completely realize that you may just hit delete since these come so late after the public comment period. Here goes anyway.

cheers,
mary jensen

A few things that I didn't see addressed:

1. How would the reduction in gasoline use, and the attendant loss in tax revenue, impact the projects paid for with the tax. Especially over time.
2. If fewer people ultimately buy gas, will that impact convenience stores/gas stations and should the plan include some thoughts about the long term impacts and mitigation.
3. In the low carbon fuel standard it lists Landfill gas. The life cycle analysis of landfill gas might prove differently.
4. Thanks for including roundabouts
5. I would include another Park and Ride at the proposed new welcome center near Brattleboro
6. A Park and Ride deterrent (and carpooling deterrent) is the lack of way to get home if there is an emergency. There are remedies, but without addressing that concern neither park and ride or carpooling will really take off.
7. Zipcars or other car share programs were not mentioned
8. I hope the newly released report about the State vehicles program lack of management will be included.
9. This report does not mention connecting with adjacent states in the rail arena or how to leverage that.
10. There may be insurance advantages if people drive less or don't drive. I don't remember seeing it mentioned.
11. I shudder when I see quotes like "growth of nuclear energy in the domestic generating mix" – in this case as a reference to an increase in powering electric vehicles. What about the mining and what about the waste. There has got to be a better way. As a nuclear expert I recently saw said "what a shame that the nuclear industry has not taken the time in the past 30 years to determine what are best safety, operating, mining, waste management and design specs for nuclear plants to be as safe, efficient and non-polluting (in all aspects) as possible.

12/1/08

Dear Commissioner,

Please consider for inclusion the following language. As you know, I have written you and testified over past months encouraging inclusion of language to this effect -- and even a Thanksgiving weekend does not shake out these concerns.

Big matters at play:

-- the anticipated federal climate law is the only source of funds sufficient to implement many of the high-dollar priorities;

-- incentives to transition to a clean energy economy is a several-fold more powerful driver toward emissions reduction than tax rebates to offset allowance prices embedded in fossil energy costs.

Please be in touch anytime. Thank you for your hard work on the Plan and for your attention to these matters.

Best,

Jim Rubens
Union of Concerned Scientists
(603) 643-6059
(603) 359-3300 c
JimRubens@aol.com

Suggested Addition to Climate Action Plan
(possibly in Chapter 6)

Support for national climate law and desired allocation of allowance auction proceeds to support state climate action plans

The New Hampshire Climate Change Policy Task Force endorses national climate legislation that will provide a significant portion of anticipated pollution allowance revenues to help New Hampshire fund the emission reduction, clean energy, energy efficiency, and adaptation priorities in this Climate Action Plan. Other than from anticipated national climate legislation, we have not identified alternative funding sources sufficient to enable many of the more capital-intensive, higher-impact priorities.

To accelerate the state's transition to a clean energy and energy efficient economy, these funds should flow back to New Hampshire through a variety of conduits to ensure flexibility, accountability, and fit to local needs, for example:

- tax credits to incent private household and business investment;
- state, local, NGO, and privately-administered matching grant and loan funds;
- direct grants or tax rebates to low-income households least able to adjust to high energy prices;
- loans and grants for student and worker green jobs training .

Unless allowance prices are set at punishing levels, adding these to the cost of fossil energy will yield only modest emissions reductions. Use of allowance auction revenues primarily to fund tax rebates to offset higher energy prices will reduce incentives to replace fossil fuels. Instead, use of these revenues to directly stimulate implementation of the private, state, and local action priorities identified in this Climate Action Plan can drive the large emissions reductions needed while growing the New Hampshire economy.

12/1/08

I had a thought about the Task Force work - this may already be in the works - it occurs to me that it might be useful to set up a training program for carpenters etc., with several "levels" of competence that could be certified. Recently around here someone hired a low bidder on a project, and the person probably could have benefited significantly if the hired man knew more than he did,,,

In our small town, of course, this would have some burdensome aspects, as we aren't very heavy on administration or regulation...

John Mann

12/2/08

Forwarded by John Mann

Subject: Re: Oil price - long term impact

Charles Krauthammer, the conventionally conservative news commentator, is one of the more surprising voices advocating a federally determined floor under the price of oil. So when the market price per barrel falls to a level that would discourage investment in exploration or production, the federal fee layered on top of that would keep the price at a steady level attractive enough to persuade investors to keep putting money into the industry. The fee also would ensure that alternatives more costly than oil would remain competitive enough to attract investment in those as well. The fee would be adjusted to the market to ensure that the price was predictable over a long period and also to ensure that oil never fell below a predetermined price -- $80 a barrel or $100 or some number -- that would be the optimal meeting point between ongoing investment and development on one hand and lack of significant damage to the national or world economy on the other.

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Subject: Oil price - long term impact

I haven't worked hard at understanding it, but several observers have commented that ther recent drop in oil prices is NOT a good thing. Basically, many projects that were intended to bring new oil sources on line - needed to compensate for declines in rate of production in existing wells, e.g. Mexico, UK, others - are being cancelled or put on hold. Why dig up Alberta tar sands if it costs $65 per barrel to produce but the market is paying only $50?

The observers foresee shortages in a year or so resulting from the current hold-up in projects, as existing producing wells will continue to decline so that when the economy starts to recover supplies will be lower than they are now and prices will go right back up again - possibly accompanied by actual shortages.

Maybe.

I found this very interesting - hope you do too.

John Mann

"Heading Out", the author of this post, is one of the original bloggers, sort of a founder and moderator.

http://www.theoildrum.com/node/4799#more

General Jones and the Chamber of Commerce Energy Plan

Posted by Heading Out on November 28, 2008 - 9:23am
Topic: Alternative energy
Tags: chamber of commerce, clean coal, hydrofracing, infrastructure, regulations, renewable energy, shale, smart grid [list all tags]

Well they say that "the Times they are a changin' " and with the impending change in the Administration and its approach to energy , and the change in the leadership of the Energy and Commerce Committee in the House, I suspect that change is what we are going to get. One indicator of a possible path forward comes from the U. S. Chamber of Commerce, where General James Jones, anticipated to be the next National Security Advisor, has been heading a panel that has just issued A Transition Plan for Securing America's Energy Future. So I thought we might take a quick look at what it says. To quote the preamble

Global demand (for energy) will increase by more than 50% between now and 2030 – and perhaps by as much as 30% here in the United States. We must develop new, affordable, diverse, and clean sources of energy that will underpin our nation's economy and keep us strong both at home and abroad. Our energy future must address growing shortfalls in infrastructure capacity and emerging environmental issues. . . . .And looking ahead, even the most optimistic among us must conclude that we are not well positioned to anticipate nor prepared to meet tomorrow's energy needs.

Based upon an initial list of 13 pillars that had been submitted as an open letter earlier this year, the Chamber has presented a detailed plan to move forward. The thirteen pillars are:
1. Aggressively Promote Energy Efficiency
2. Reduce the Environmental Impact of Energy Consumption and Production
3. Invest in Climate Science to Guide Energy, Economic and Environmental Policy
4. Significantly Increase Research, Development Demonstration and Deployment of Advanced Clean Energy Technologies
5. Significantly Expand Domestic Oil and Gas Exploration and Production
6. Commit to and Expand Nuclear Energy Use
7. Commit to the Use of Clean Coal
8. Increase Renewable Sources of Energy
9. Transform our Transportation Sector
10. Modernize and Protect U.S. Energy Infrastructure
11. Address Critical Shortages of Qualified Energy Professionals

12. Reduce Overly Burdensome Regulations and Opportunities for Frivolous Legislation
13. Demonstrate Global Leadership on Energy Security and Climate Change.

To ensure that the program is given the importance it deserves, the plan recommends the creation of a new office within the Executive Office of the President, to coordinate energy policy. Further that the holder of this post should sit on the National Economic and National Security Councils.

The plan then goes ahead to list 88 recommendations as a roadmap to meeting the above imperatives. In the interests of space, and time, I am not going into all of these – they are broken down into initiatives from the President and Administration, those that involve the Administration and Congress, those that relate mainly to Congress, and the Individual States. They are divided by the thirteen themes listed above, so let me briefly glance at each sector and give you my abbreviated thoughts on the recommendations for that theme.

In the area of Energy Efficiency, part of the recommendations relate to tax incentives for items such as more energy efficient buildings and the installation of more efficient appliances, windows, furnaces etc, but carry those on into the electric grid and smart grid devices. Since the document is from the Chamber it is more oriented toward business, but Alan wrote to me earlier this week about the Energy Savings that can come from retrofitting homes, citing the Austin Energy initiative, and the significant energy savings it has accomplished by the sort of Aggressive approach that the Chamber seems to be advocating. This pro-active sort of program is claimed to have saved the energy of a 500 MW power plant already, and at that level would also seem to deserve inclusion in the agenda, but does not appear.

Moving on to Environmental Impacts (separated from Climate Science) it seeks Congressional activity to give tax credits for retrofitting existing coal-fired power plants to reduce criteria pollutants and carbon dioxide emissions. It also seeks clarification that greenhouse gas emissions should not be regulated under the Clean Air Act or the Endangered Species Act.

There is an interesting paragraph in the section on Climate Science, which largely calls for a greater investment in Climate Science, and the integration of data. It reads:

To maintain the public's trust and support and to ensure transparency, researchers who receive federal support should be required to disclose their data, models, and other relevant material, subject to protections for confidential business information, so that results can be assessed and reproduced.

Perhaps, having read of some of the issues that Steve McIntyre has had with the hockey stick plot of global temperature rise, I will quietly tiptoe away from this one. It is difficult to dispute, however, the need for the integrated surface, ocean and space-based observation network that the plan calls for.

In the field of Clean Energy Technologies the plan calls for venture capital firms and businesses to work within the national laboratories to commercialize technologies being developed there. It calls for a new ARPA-E program or its equivalent to fund high-risk, exploratory research on innovative concepts and enabling technologies, and also notes the need for an Electrical Energy Storage Initiative to develop cost-effective technologies that can store 50 to 100 MW of power, for use with intermittent technologies (I presume that means wind and solar). It calls for doubling federal spending on Energy Technology R&D, a long-term tax credit for companies in that area,

and a Clean Energy Bank that will be able to accelerate the market penetration of advanced clean energy technologies.

Under the section dealing with the expansion of Domestic Oil and Gas Production it seeks to open the Outer Continental Shelf, encourage the Alaska natural gas pipeline and the expansion of the leasing program for access to fuel sources on non-park federal lands. It recommends repeal of the rule that prevents the federal government from using non-traditional transportation fuel sources.

Seems that Leanan had noted that the Bush Administration was doing something about the access to federal lands earlier last week, we'll just have to see how that one plays out. As to the fuel source issue, seems to me there was a Congressman . . .

And speaking of Congressmen, it should be noted that if Leanan's catch on the new head of the Energy and Commerce Committee not liking hydrofracing holds up then it is possible that the techniques that are currently producing gas from the shales of the East and Mid-West might be in trouble. He seems a sort of determined type of guy, so again, we'll just have to see how that plays out.

Under the section dealing with the Expansion of Nuclear Energy, the plan calls for a resolution of the storage issue for spent fuel, and growth in the strategic stockpile of uranium.

Under Clean Coal technology it suggests partnering with other governments in advancing CCS technology, it recommends $500 million toward the IGCC program and related carbon capture technology research, and $500 million for an IGCC demonstration plant, with creation of an industry-funded research program to support further R&D in this area. It suggests that tax credits be used to encourage the first five or six advanced coal-fired plants.

When discussing Renewable Sources of Energy, the plan does not single out different potential programs, but rather (within the framework of doubling overall federal R&D spending) recommends more research and more tax credits to encourage investment. Maybe they think that all the current commercials for the technology, and the support of T. Boone will be all that it takes.

The recommendations for the Transportation Sector include encouragement for the military to find alternate sources of fuels for military use. Interestingly it is here that the possible conflict between biofuels and food is addressed, with the suggestion of a multi-agency review, though the problem gets tossed to the National Academies for recommendations. Sadly there is no encouragement of urban transportation systems, such as those that Alan, inter alia, advocates.

Infrastructure recommendations include the implementation of a smart grid, the inclusion of refined products in the Strategic Petroleum Reserve, which should be grown to 1 billion barrels, and the problems that water availability is going to bring to the production and availability of energy.

Hmm, and the section on the Critical Shortage of Energy Professionals – apart from the nice sounding "providing adequate financial and institutional support for researchers", I don't see a lot of recognition of a real program that will help get us where we need to be, though it contains the appropriate phraseology. Motivation, motivation, motivation . . . (so--when are we all retiring ??)

Under the heading of Reducing Frivolous Litigation, it suggests streamlining the permitting of refineries, a federal siting authority and a review of the Clean Air Act to allow routine maintenance. (This one goes right by me – I have no clue!!)

And that brings us to the final recommendations on Leadership in Energy Security and Climate Change. This includes the safety of international shipping routes, and the raising of energy as a critical part of the U.S. trade agenda. In light of our other ongoing discussions on the IEA it does recommend a strengthening of support for that Agency, and for the expansion of its membership to include India and China. It also calls for the creation of an International Clean Energy Fund, and as something close to Matt Simmon's heart

Nations should improve transparency, reliability, and availability of oil and gas market data as well as their analysis of long- and short-term supply and demand trends to help make the world energy market less volatile.

Well, this has been a bit longer than usual, and yet has only skimmed the highlights of the recommendations, so I would encourage you to visit the site, and then add comments to perhaps explain some of the issues that I have glossed over. We will see if it has any future.

Part 3

Summary of Verbal Comments
To the Climate Change Policy Task Force

Received

February 2008 – September 2008

STATE OF NEW HAMPSHIRE
Department of Environmental Services

MEMORANDUM

DATE: October 10, 2008

TO: Thomas S. Burack
Chairman Climate Change Task Force

FROM: Deana Aulisio
Joanne Morin
Chris Skoglund
Air Resources Division

SUBJECT: **Draft Summary of the Public Comments Regarding the New Hampshire Climate Change Action Plan**

Introduction

Throughout the New Hampshire Climate Change Action Plan development process, the Climate Change Policy Task Force has made it clear that the public has a strong and valued role to play. Although only charged with holding a single public listening session regarding the Plan, the Task Force immediately elected to hold additional meetings later in the process and rescheduled them to ensure that the public would be better able to attend. Additional comments were gathered via email, mail and during discussions at invited presentations by the Department of Environmental Services.

In order to communicate the range of the feedback that has been received, the following draft summary document has been prepared. The major comments form each event have been summarized below and the frequency a comment was held in indicated in parentheses. Written comments received via mail and email have been compiled in two electronic documents and submitted directly to the Task Force. This document is still in preliminary form and DES is looking for comment from the Task Force regarding format and readability.

1st Public Listening Session
Tuesday, February 19th - New Hampshire State House, Concord

This first event was held at the State House in Concord and provided an opportunity to raise awareness of the Task Force and the Action Plan and to collect initial comments. Commissioner Burack provided introductory comments and DES staff provided presentations regarding the observed and projected impacts of Climate Change in New Hampshire as well as an overview of the Action Plan development process. Several Task Force members were also able to attend as well as members of the press. Nearly 100 members of the public attended and 29 individuals provided verbal comments and/or written testimony. The comments were originally summarized and shared at the March 10 Task Force meeting at Stonyfield Farm.

Their comments included:

IMPLEMENTATION:

- The Climate Change Policy Task Force should work in collaboration with the Local Energy Committees. (2)
- More education is needed to implement these actions.

- Reach out to people by changing culture through the media.
- Green jobs for clean energy will benefit the economy.
- There is a need to look at adaptation, for example, as sea level rises.

BUILDINGS:

- The public encouraged that additions to schools should include energy efficiency improvements. Schools should be audited for their energy use. Most school boards are not aware of the opportunities available to them. The Jordan Institute is a beneficial resource for schools.
- All new buildings should be Energy Star or LEED certified.
- The state should support home energy audits and provide funding for weatherization.
- More walkable communities are needed in the State. Sustainability should be considered in town planning. There should be a strong focus on the built environment.
- A suggestion was made to recycle old building materials as we rebuild infrastructure. There should be an internet portal for building materials available.
- Less pavement and more pervious surfaces are also solutions the state should consider.

ELECTRICITY:

- A theme discussed was to encourage local generation of heat and power in the state.
- It was pointed out that Dover has one of the fastest tidal flows (possibly 3rd fastest in the world). We should harness this tidal energy. (2)
- The state should avoid nuclear energy. Instead, they need to advocate using non-polluting, safe, sustainable energy as soon as possible. (4)
    - One commenter fears that substitution of renewables for energy is necessary, but that renewable power is not enough. Therefore, nuclear fusion energy should be considered for the future.
- The state should install district heating systems. There is currently no benefit for reusing waste heat. Combined heat and power systems are very efficient.
- It is necessary to stop subsidizing carbon intensive fuels and provide incentives for renewables.
- Decoupling, Renewable Portfolio Standard (RPS) and the Regional Greenhouse Gas Initiative (RGGI) will create funding for renewable technologies.
- Conservation and energy efficiency are risk-free ways to cut emissions.

TRANSPORTATION:

- Hybrids and electric vehicles should be used to reduce transportation emissions. We need fewer and more efficient cars in the state. (3)
- Alternative fuels are part of a small solution, consuming less fuel and using cleaner fuels will have a greater impact.
- The state should make biodiesel stations more competitive by affecting the prices and making it mandatory. (2)
    - Another person reported that biofuel is carbon intensive when considering the life cycle processes required to produce it. It is creating pressures on agricultural land and environmental habitats.
- It would be wise to create a state tax based on miles per gallon or miles driven and create a rebate or incentive for cars with high mileage economy. (3)
- Mechanisms to encourage and/or enforce "no idling" should be considered. (2)
- Carpooling and public transit must be encouraged with more park and rides (specifically on Rte 101 and Rte 4) and public transit hubs. (2)
- Businesses should provide incentives to their employees to carpool or work 4 days a week. (2)
- A subsidy could be used for buses and trains.
- Highway tolls should be increased.

- Parking pricing is a good way to raise funds and discourage driving.
- It was suggested that parking spaces at malls be taxed to help downtown business communities.
- The speed limit should be lowered to 55 mph. (2)
- Drivers need to be educated to improve their habits and save fuel.
- Bus lanes should be built on highways.
- The public expressed support for more bicycle paths.
- Everyone should have access to high speed internet service to support telecommuting.

AGRICULTURE, FORESTRY, & WASTE:

- Subsidies should be provided to local farms for food.
- The concept of biomass generation is a reliable source of power for the state. We need to use more wood for home heating, and should put an emphasis on pellet stoves and heat pumps. (2)
    - Another person believes we need to retain our forests.
- Waste reduction and recycling cooperatives are needed in communities. Pay-as-you-throw should be the standard and a Bottle Bill should be implemented.

Local Energy Committee (LEC) Roundtable Discussions

- ***Tuesday, August 5th – UNH MUB, Durham***
- ***Wednesday, August 6th – Keene Recreation Center, Keene***
- ***Tuesday, August 26th – Kennett High School, North Conway***
- ***Wednesday, August 27th – Meredith Community Center, Meredith***

The Department of Environmental Services was invited to present to the newly emerging Local Energy Committees (LEC) in four regions around the State. DES staff provided a brief presentation concerning the purpose, process and progress of the Task Force and then engaged in an interactive discussion with attendees. The notes recorded during these events reflect the ideas of the groups rather than points raised by the individual attendees. The comments were originally summarized and shared at the September 12th Task Force meeting at the Portsmouth Public Library.

Their comments included:

IMPLEMENTATION:

- The LEC groups were interested specifically in who will have authority in the CCAP process and how it will be implemented. A climate change advisory council must be a permanent body that would coordinate work across the state and connect with the Local Energy Committees (LECs). The action reports are a good laundry list of things to do, but how it will be done is more difficult.
- It will be necessary to mobilize grass roots organizations to implement the actions and these organizations will need funding from the state. Whatever the Task Force can do to direct money to the LECs should be done. Funding is needed for LECs, schools, and individuals to make changes.
- The LEC groups want the plan to be driven by economic incentives rather than command and control. Most people are interested in economics, not climate change. They do not see climate change as the most pressing issue.
- The Task Force needs to be creative and make holistic decisions with a long term vision. New Hampshire should be more aggressive than other states, better than 20% by 2025.
- It was stated frequently that the report should provide **bold** guiding principles. People are changing their habits and attitudes, so be bold. The LECs hope to see authority behind the actions.
- One comment was made that the goals and calculations in the plan should be realistic.

- A comment was also brought up that the government should integrate different groups (i.e., housing, transportation, energy).
- Legislation to enable formation of town energy commissions should be passed. Epping is a role model for the state – their planning board has an influential energy committee.
- The "no broad-based tax" issue in the state will be a problem. We should tax carbon, not cap and trade; cap and trade creates bureaucracy. Phase-in taxes on things that are bad for climate change; do not tax desirable behavior or actions.

EDUCATION:

- Education is critical to successful implementation of any of the actions. They saw this as an area that is still significantly lacking. Education is needed at many levels but specifically called out education targeted to individual on what actions they can take especially in the area of energy efficiency, what works, reliable energy contractors, etc.
- Grassroots organizations should have an email list and coordinate letter writing.
- Committees should receive training (i.e., grant writing).
- Public outreach should be in print and on the radio consistently, not just on a website.
- The public should be kept aware of the actions that are implemented; there should be a yearly public input process.
- Should incentivize entrepreneurship in schools specific to energy efficiency, particularly in order to engage young people and get their input.
- There should be more workforce training programs for green technologies.
- LECs should be pivotal in driving action plan. The state can integrate LEC knowledge and information.

BUILDINGS:

- Community scale projects in areas like energy efficiency or renewables should be encouraged in the Action Plan. People need to learn that the economics are in their favor. There isn't enough education available on home energy audits. People do not know how to save energy.
- Advanced metering is an effective action – it has more potential than decoupling because it would make homeowners more in control of their energy use.
- Should provide additional incentives to buildings (e.g., schools) for renewable fuels.
- A discussion was focused on the impact to low income households in all LEC round table meetings. The income threshold for assistance should be higher. More resources should be allocated to low income households. A group of volunteers exists that would be willing to helping low income people to weatherize homes. There needs to be more training of volunteers for this. A carbon offset program should be used to raise money for low income families. Low income groups should not be an obstacle to implementing the plan. There could also be a sliding scale on energy bills. In Lincoln, the Community Action Program gives a maximum of $550/family each season. This should be a role of the state.
- It was also suggested that landlords be included in fuel assistance & weatherization funding.
- Principles such as preserving old buildings are important. Did not see much on renovations in the actions, most permits requested are for renovations.
- Contractors are not always reliable. There needs to be certification for all builders and contractors to consider efficiency as well. We know how to build this way, but the message is not being conveyed, and the education is not there.
- There is no enforcement or checking of new building energy code. Building codes should be mandated instead of incentivized. Building inspectors should be educated on energy issues. The state should help towns rewrite their building codes. New codes should be enforced for all new buildings.

- The LECs believe focus should be on building envelopes and education for existing building owners to encourage gradual improvements.
- The LECs want to make sure recommendations are not focused only on all of the various green building practices as emphasized in "LEED" – but also on heating energy efficiency, solar orientation, and insulation. It is not about what kind of heat, rather conservation is the key.
- Austin, TX has a program that requires reuse of construction and demolition debris. A list of recycled construction materials available for use should be developed for the state – which should also provide a list of regional providers.
- Efficiency of scale is important for towns, for example, district heating is very efficient. Facilities should also be co-located for Combined Heat & Power. Municipal utilities should provide similar energy efficiency programs like the utilities do through the "core programs".

ELECTRICITY:

- The LECs desire that the state manage energy price volatility – if energy prices or taxes are going up, that money should go into low income efficiency projects.
- RGGI is too weak - the Task Force should strive to submit more aggressive actions. The RGGI money should be used for business needs and low income needs. The information about where RGGI funds are going should be more available from the Public Utilities Commission (PUC).
- It is ambiguous whether hot water is regulated like steam or not. The PUC needs to make a judgment concerning this so Combined Heat and Power and district heating facilities can move forward.
- The greatest barrier is that renewable energy developers have trouble obtaining financing for new projects.
- An unintended consequence of a carbon tax would be to move toward nuclear, so that should be taken into account.
- What are the New Hampshire senators and representatives doing to push the federal energy bill? What about a cap and trade bill?

TRANSPORTATION:

- A member of the LEC believed there is a big omission in the transportation actions; article 6A of the constitution should be changed so that gas tax money could go to public transportation improvements, not just highway construction and maintenance. Funding of public transportation is a problem. Property tax could also go to public transportation investments.
- State funding should be invested for long term projects. The $800 million to widen I-93 should have been used elsewhere. For example, a rail system to the North Country should be established.
- The state should push for higher CAFÉ and California vehicle efficiency standards.
- Efficiency of cars should be expressed per mile (gallons per mile) instead of using mpg standards.
- The LECs believe more bike paths on roads would aid tourism. DOT should make state roads safer for cyclists.
- Speed limits should be enforced vigilantly. However, one LEC member mentioned that lower speed limits on interstate may encourage travelers to take other roads not designed for high traffic
- VT and Canada are idle free. New Hampshire should promote anti-idling and educate town and state fleets.

FORESTRY AND AGRICULTURE:

- One member of an LEC wants to hear more about sequestration in the plan. If the plan talks only about energy solutions and not sustainability, then using a low carbon source like biomass may

cause destruction of our forests. Another pointed out that we cannot sacrifice healthy forests to burn wood for electricity or heat.

- There are proposals for 300 to 400 megawatts of new biomass electrical generating plants – one concern for these projects is efficiency constraints. The efficiency of these plants is often around 25-30%. State should set a standard that it will not approve/build plants, even renewable plants, with less than 80-90% efficiency.
- Forestland conversion action report doesn't provide enough motivation to preserve forests. We need to be able to market carbon credits for forest owners. The cost is huge to find alternatives if timberland isn't valued.
- Further, if too many people switch to wood stoves, there will be air quality issues.
- One LEC proposed that schools should use biomass; payback would be 6-7 years, and 2 if the school board contributed funding.
- Local foods should be supported and marketed more.

WASTE:

- Many towns are not recycling. LECs would like recycling to be mandated - giving towns flexibility does not mean they will take action. There needs to be more about reducing the waste we are creating in the Action Plan, such as using new technologies (e.g., plasma gas) to make waste into energy.
- The LECs would like to see a Bottle Bill passed. The CCAP needs to explain why bills like the Bottle Bill are not being passed in New Hampshire, what's wrong and why things are not going forward. The problem is that there is not enough exposure to the issues.
- Instead of a Pay-as-you-throw action, there should be a charge up front for disposal costs. There could be a rebate as you turn it in instead of a disposal cost.

Fall Public Listening Sessions

- ***Monday, September 15th – Seacoast Science Center, Rye; UNH MUB, Durham; Timberlane Regional Middle School, Plaistow & Professional Development Center, Exeter***
- ***Thursday, September 18th – PSNH Auditorium, Manchester***
- ***Thursday, September 25th – Heberton Hall, Keene & the Lebanon Opera House, Lebanon***
- ***Monday September 29th – North Country Education Service, Gorham; Lin-Wood High School, Lincoln; & White Mountain Community College, Conway***

In late summer/early fall, DES held public listening sessions around the state to increase the range of perspectives captured and to increase awareness of the Action Plan development process. Events were planned for 4 nights but were held in 10 locations. On two of the evenings, DES collaborated with the Granite State Distance Learning Network to set-up interactive video networked events that reach a greater number of participants while reducing their respective travel distances and times. The total number of attendees was around 170 with 75 of them providing verbal comments.

Their comments included:

IMPLEMENTATION:

- New Hampshire is the last to develop a Climate Change Action Plan; it needs strong targets and accountability to achieve them. The Task Force should be bold and unconcerned with political feasibility – compromise can come later. (3)
- New Hampshire should become the greenest political entity by showing leadership and educating the people.
- The way New Hampshire state government is structured is a challenge to implementation. A governmental entity (champion) should be instituted to implement these actions. For example,

Governor Romney created a sustainability czar in MA to deal with smart growth. Perhaps certain state agencies should be blended together to work toward common goals. (3)

- If the Plan is guided by cost effectiveness, in other words $/ton CO2 reduced, the result will miss the other socio-economic and environmental benefits.
- The plan needs to prioritize actions with practical, specific information in an appendix on each of the options. For example, it is important to distinguish what can be accomplished as a state versus a nation level (3)
- A citizen was uncomfortable with the concept of not knowing the full potential of any actions. It is necessary to be able to compare all technologies to know which is most appropriate for New Hampshire. For example, solar may cost millions to get the power onto the grid.
- The volume of report is overwhelming – eventually it should be a clean road map with more citizen input.
- The recommendations should be based on math.
- The state government needs to lead by example, like Epping has done.
- Adaptation is good to have in the plan. Adaptation is an issue of social justice. Hurricane risk is significant; we need to spend time addressing this. Federal funding is needed for actions related to Adaptation. (4)
- New Hampshire needs to develop a plan to stop growth and lower emissions 10% below 1990 levels. This will require long-term actions that take 30-50 years to implement. (2)
- Emissions are 1/3 from cars, 1/3 from electricity, and 1/3 from everything else. Therefore, there needs to be focus on transportation and power systems.
- On the basis of economics, the public gave these points:
    - A way to fund these actions is needed even if it requires changing the state constitution. If people are serious, then the government should direct savings into future projects, not to just a general fund. (2)
    - There is deficient funding for many of the actions. RGGI is the only action that will be an adequate source of funding.
    - The plan should address the lack of up-front cash by financing based on savings. The Task Force should look at pay back over time with savings (performance contracting) for new technologies. If the state does not have resources to develop alternative financing then it should bring together financial experts to figure it out.
    - Upfront cost and payback matter most to people; energy security is a smaller issue.
    - Many recommendations create a strong economic benefit; the Climate Change Task Force has underestimated the economic benefit.
- New Hampshire has a business friendly environment. New Hampshire should increase its green businesses and emphasize a green economy with job creation. Environmental issues are an economic issue. (4)
- Businesses should form public-private partnerships. New Hampshire should encourage colleges and universities to start incubator companies on green technologies. NHCF will support implementation with their public policy leadership initiative that brings together business/non-profits/government. Energy will be one area of focus – grants for civic leadership will be available. (3)
- There needs to be fast track information out there for decision makers/property owners
- Food and shelter are most affected by climate change.
- It is important to consider elderly, disabled, and low income people of the state. They are most affected by housing and transportation. What's good for people and climate are the same.
- People are willing to change their habits, due to cost of climate change fears. (2)
- Citizen groups that are working on climate change initiatives should be supported. Community Local Energy Commissions are important to implementing the Plan. (2)

- The Task Force needs to focus on local solutions. This is a great opportunity for the state to work with local communities. The people want to reduce their consumption and be independent.
- Four (4) members of the public disagreed with the scientific basis for acting on climate change. Their reasoning being:
    - The problem is that the Task Force has assumed global warming is anthropogenic. Yes, CO2 is high, but water vapor is the leading greenhouse gas. Data is thin regarding the temperature rise, there is not a consensus. Temperature of earth is 60° warmer due to greenhouse effects, not anthropogenic. It is hard to forecast the future; 30 year forecasts are never successful. Hansen predicted an ice age and was wrong. Cameron Wake predicted a 4.5° increase in winter temperatures, but temperature has dropped instead. Professional societies are comprised of zealots.
    - Models have not been predictive in recent years. A warmer Atlantic Ocean brought more snow to Boston and NYC. Temperatures have been declining since 2002. Climate is never static, it varies. There is a conflict between working with theoretical and actual data. Computer models do not properly assess how CO_2 contributes to global warming. Water vapor is the principle GHG, but water cannot be mitigated. Thus, CO_2 is the "whipping boy".
    - There is a lack of science in the Plan. The implicit assumption is that the climate change implies warming temperatures, and we assume we need to remove carbon from environment. CO_2 has a more limited warming impact than some think, it does not absorb all the radiant light, so it isn't as important as it was early in Earth's history. CO_2 is referred to as a pollutant, but it can be positive by making rice grow faster and be more drought tolerant.
    - In the atmosphere, the earth's ultraviolet radiation heats the ground which re-radiates infrared heat, increasing the ground temperature, and the so-called greenhouse gases re-radiate that heat in all directions including out to space. Furthermore, CO_2 reaches its saturation point and can not absorb any more heat. It is far-fetched to base everything on CO_2.
    - The International Panel for Climate Change (IPCC) looked at an artificial feedback loop that is now falling apart – Pacific Decadal Oscillation. Ocean oscillations are not warming, there is rather dramatic cooling.
    - The State should focus on climate change science, which is not right yet. The American Meteorological Society board is made up of 12 like-minded people, not representative of all the membership. These societies represent a small segment of academia, benefiting from grants. Most meteorologists and climatologists are skeptical of climate change.
    - We cannot change CO_2, but we can consume less fossil fuels; that is economically viable. Overall the Plan is very positive, focusing in on conservation and energy efficiency.
    - Energy efficiency and renewable energy make sense regardless of climate change theories. However, drastic measures will not make a big difference, they will hurt New Hampshire. Growth in China will wipe out any improvement New Hampshire makes.
- Other commenters supported the premise that anthropogenic emissions are primary cause of climate change.
- Irregardless of the debate on climate change, a number of commenters felt we should conserve our resources. (3)

EDUCATION

- Energy programs need to be instituted into school curriculum of elementary and high schools. (5)
- Support should exist for schools to become green. It will help reduce energy costs and savings can go to educate the students while providing educational benefit as well.
- As we make changes we need to be developing the experts here in New Hampshire rather than bringing in outsiders. Teach our own people how to do it and do the work ourselves.

- Need to educate people that actions that are costly upfront will benefit the state and the economy.
- The Seacoast Science Center welcomes the opportunity to host more meetings, listening sessions or other ways to engage people in solving these problems. Enlist the Seacoast Science Center as an education center for the state. The building can also serve as a demonstration site for alternative energy applications including tightening the envelope of the museum (a state building).
- Education is needed, especially for the Planning Boards and volunteers.
- Education is very important so that new buildings are built under a certain standards/insulating quality. Educate at the town level. (2)
- Local Energy Committees and other planning boards need educational materials so that when new codes are passed builders will be informed.
- There are still people who don't believe people's actions have any impact on the atmosphere/climate. This is due to lack of education.
- Short education programs could be developed on what people's options are for solar, recycling, energy star insulation, and reducing energy consumption. Education works better than a sales pitch.
- Tourism is a mainstay in New Hampshire. Visitors should be educated on green efforts here in the State.

BUILDINGS:

- Energy efficiency is the most cost-effective area with the greatest bang fore the buck and collateral benefits. Early money should be spent on conservation before going with new systems. It has the least impact on the environment and the most savings. Individuals can do it themselves. Incentives would be helpful. (4)
- Homeowners to pay up front costs for energy efficient improvements. Tax breaks are helpful, but people need upfront money in some cases.
- Low energy use and environmental buildings should be a priority. People do not know what is possible in buildings – the best technologies for air tight insulation have been around for 25 years. Can reduce energy use 4-fold (70%) with super-insulated homes and new options for heat and hot water. Do things that make sense first, insulate buildings first, then try using solar/wind. The biggest barrier is education of architects, builders, and engineers on what's possible and how to do it.
- People are willing to invest money in solar but they need education to know what resources are available, like certified contractors. Solar thermal is a very practical application in the North Country. (2)
- Community based solar installations could be run as a cooperative like the Plymouth Area Renewable Energy Initiative model. These cooperatives can reduce payback period to 4 years on solar hot water heaters.
- Solar can be installed quickly and life cycle costs are reduced since there is no transportation of the fuel. Solar hot water should be widespread, needs incentives to make it happen and leadership from the state especially during times of economic hardship. (2)
- Solar hot water heaters have a short payback time around 4 years. (2)
- Hot water on demand is efficient.
- Financial incentives should be provided to large scale property owners to make energy efficient renovations. Right now it does not make economic sense because short term tenants do not see savings. Renters are asking new questions like how much to heat and how far to town. (2)
- Contractors are lacking workmanship from their labor force. Contractor and worker education needs to be addressed.
- At least five (5) citizens provided input on the anticipated crisis in home heating this coming winter. Their comments are summarized below:

  - Existing building stock is facing a heating oil problem and will need energy assistance. Alternative energy is great, but efficiency is better. The answer is to fix building envelopes. Addressing energy loss and need (low income) should be the top of the list. San Francisco used a bond to go building by building to improve insulation. The city then taxed the homeowner with an energy performance contract. New Hampshire should also do this to make homes and buildings more efficient.
  - There is no action for improving heating in residences. 600,000 homes in the state are currently being weatherized at about 2000/year. In the SW region 3000-4000 families qualify for fuel assistance. A 50 year time frame will be needed to achieve weatherization for all homes. There is not enough expertise for weatherization skills; training will be required. Price rises in fuel eat up savings for weatherization and capital costs would not be recovered in a reasonable time.
  - It will take $12 billion to weatherize New Hampshire according to Dick Henry of the Jordan Institute. Towns need to form confederations to rationalize how everything will be financed. There should be a mechanism to get the money to home owners as quickly as possible.
  - Low Income Home Energy Assistance Program (LIHEAP) should leverage government investment – use $10 million funding for energy audits and weatherization.
- LEED standards for buildings should be mandatory for new homes/buildings.
- State buildings should use renewables like wind and solar to lead by example (e.g., Berlin Prison)
- All public buildings in New Hampshire should be working with PSNH to reduce energy use. This will save every tax payer.
- Existing buildings are a bigger challenge than new; we need to fix what we have. Encourage the re-use of old buildings and discourage big footprints. Historical preservation is an essential part of a climate change strategy. PSNH building is an example – it includes benefits of economic revitalization/smart growth. Historical preservation saves energy and natural resources by maximizing use of infrastructure, preserves open space, reinforces a sense of place, and records how people have lived.(3)
- We need housing, hospitals and schools, not more stores.
- The government should give priority to developers who met certain environmental goals.
- Put a tax on fossil heating fuels.
- New Hampshire needs more home energy raters (<10 in New Hampshire, >30 in MA).
- Free energy audits should be coupled with recommendations on savings for all homes below a low income threshold.
- CT and ME have implemented an Energy State Mortgage Progress, which provides incentives on mortgages to improve the efficiency of the house.

ELECTRICITY:

- Citizens may be willing to pay more on their electricity bills to have cleaner electricity in the state. The State should set up new zones and invest in transmission.
- Emphasize solar and solar manufacturing. (5)
- PV cells could be placed on the edge of interstates and connect to the transmission lines.
- There is potential for wind power in New Hampshire. (5)
- A systematic review of tracts >1500' elevation is necessary to determine wind potential. Twelve turbines in Lempster reduced CO2 by 40,000 tons and 96,000 bbls of imported oil are not needed. The logic is to scale it up – more in Lempster, Balsams, Groton. 1200 MW of new wind power, plus energy efficiency, could retire Merrimack Station.
- The world could be at or near peak oil; New Hampshire should invest more in solar and wind energy.

- There are problems transmitting electricity from wind and solar. AC isn't efficient for transmission, DC doesn't hold as much. Wind is an intermittent source, so there is a capacity and storage issue. The grid is too old.
- Acres of wind turbines will need to be integrated into the electrical system, which will require a whole new set of power lines.
- It is possible to consider wave and tidal power since New Hampshire has these resources.
- Dams in New Hampshire may provide hydropower.
- New Hampshire has excellent potential for geothermal. It should be looked at on a large scale.
- Take advantage of renewable energy and keep more of it in the state. A mix of solar/hydro/wind/geothermal is needed to replace coal. There needs to be a balance in types of energy. Get utilities to focus on alternative energy like solar panels on roofs, wind energy to create jobs in Northern New Hampshire. (3)
- It is a public policy challenge to look at renewables, we need to stand up to oil companies. IA, WI, CO, TX, and CA have political leadership looking at renewables. Tom Friedman's columns on energy production and international policy links are useful to help New Hampshire make a difference. The Task Force should connect with Scandinavian countries that are already implementing actions that we are considering, for example, wind power. (2)
- New Hampshire should not be an energy "colony" for other states that do not produce electricity.
- The energy services industry is just getting good, driven by the Systems Benefits Charge.
- New Hampshire should begin "RGGI 2" to exceed the goals of RGGI. (2)
- Legislation passed RPS to fund renewables and homeowner systems. RPS will lead to a $6000 tax credit that will be available next summer. This plan should exceed RPS goals. (3)
- Biological and ecological issues should be considered, but people need to get away from "Not in my backyard (NIMBY)".
- It is necessary to site things appropriately. Do not build a large facility that loses large amounts of energy over long distances when smaller scale local generation will do.
- The state should promote using less energy use rather than destroying critical habitat for more energy production. Free flowing streams are good fish resources, important economically and for sport. The fragmented habitats of sky island eco-systems (mountain-tops), where wind is often best for wind power, need to be protected. Wind power should be put offshore, like in Delaware. Offshore wind power creates habitat for marine life. (4)
- Geothermal and hydroelectric should not threaten critical habitat or communities (e.g., Native Americans displaced by Hydro Quebec).
- At least ten (10) citizens provided input on nuclear energy. Their comments are summarized below:
    - We should not be considering nuclear re-licensing at this stage because it is too early, most of the power is going to MA and CT, not New Hampshire, it is unsustainable since uranium is limited and storage of waste is not defined, and increased intensity storms could destroy marshland protecting Seabrook.
    - The State needs to also look at the life cycle emissions of nuclear, not just the fuel emissions. Also, nuclear is not renewable as some people think.
    - The waste cannot be buried in New Hampshire as we are on a fault line, and it is an ethical problem to ship our waste elsewhere.
    - Nuclear takes 20 years to develop, we do not have that long to make a change. Also, the cost of nuclear is very high.
    - Citing nuclear in New England is difficult because there is too much opposition
    - The state needs to pursue nuclear more because Seabrook works for New Hampshire. A second Seabrook should be built with new plant technology that uses existing transmission lines to get power up to North Country and bring prices down.
    - The Task Force should have a nuclear subcommittee. Seabrook is already on the grid and has onsite storage of spent fuel. France is 80% nuclear.

  - Nuclear power is not mentioned as an alternative, but there are no bad effects. The nation needs to solve the Yucca Mountain storage issue.
  - Nuclear is carbon free and it should be considered. Electric cars charged at night might fit well with nuclear power.
- Small scale participation in carbon credits should be accepted. Small scale installations should be aggregated to receive a Renewable Energy Credit.
- Closing Merrimack Station should be a priority (40% of all CO2 in New Hampshire). (3)
  - The $5 million used to implement scrubbers could be used to insulate homes. Or, make it a step to create renewables and alternative energy. Wind energy in Coos County has 1.5 times more potential than the Bow Station. Germany is a good model for wind energy.
- Another citizen suggested looking at clean coal technology rather than shutting down Bow Station.
- Energy efficiency could be doubled by co-generation, but the plants need to be co-located.
- According to supply vs. demand it is cheaper to conserve than generate a new supply.
- Time-of-day metering should be an action, as well as Smart Grid infrastructure. (2)
- Feedback is an effective way to change habits (e.g., smart metering to measure energy use, motion sensors for lighting are attractive to people).
- Net metering should be expanded so that individual systems can offset power use by selling electricity back to the grid (e.g., wind turbines).

TRANSPORTATION:

- TLU Action 1.A.3 CALEV Standards is not needed since there has been recent action on Federal emissions policy on CAFÉ standards and because CA has a different vehicle mix than New Hampshire (53% of New Hampshire is light trucks, where CA only has ~40%). The proposed federal standards are very progressive – 35 mpg by 2020 for fleet, 27 by 2011 for Light duty. CAFÉ will reduce GHG by 30%. It is difficult to respond to patchwork standards. CALEV will lead to patchwork and limited product availability as each state will have different fleet requirements. Emissions inspections are working well and consumer demand is moving towards more efficiency. A goal should be to replace old fleets. (2)
- We should use ideas from Europe. For example, in Italy, the government bought back cars with too high emissions, so people could buy a more efficient car.
- At least ten (10) citizens provided input on public transportation. Their comments are summarized below:
  - Regional coordination of public transit is essential so we can move people around the State. The Upper Valley is the leader in bus ridership. New Hampshire needs to fund express buses like VT has. There needs to be a stable funding source, New Hampshire is 41st in funding public transit. (3)
  - Public transit has complimentary benefits; people can get work done and build community on buses.
  - Land use should be a leading priority to achieve transit improvements. The guidelines for efficient and livable growth should be denser communities and interconnecting towns with transit. Urban land use principles will not be easy in rural areas. (2)
  - Widening highways is not sufficient; we need an inter-modal system between Concord, Portsmouth, Manchester, and Boston. For example, New Hampshire should extend passenger rail up the I-93 corridor. A high speed rail should run from Boston to Montreal. Buses should run down I-89 for state employees. (4)
  - Encourage and strengthen the rail system to help bring alignment between excess jobs in Upper Valley and excess housing elsewhere. Right now people's housing savings are going into gas tanks. (2)
  - There is not enough money to develop public transit, raising gas tax one cent could be dedicated to transit. The gas tax is written in the report, but not where the money will go.

A tax on gas could be phased in over time, so people have time to plan. The low income class should be assisted. (4)

- Transport demand can be reduced by planning communities appropriately with compact design and incentivizing reduction in travel. The action states that an educational organization should be established at the state government level. Should be developed through a land trust organization instead because they are better equipped to do this type of education/outreach. (2)
- DOT should create better, safer routes/lanes for bikes and pedestrians. North Conway is a good example. In Europe, they have pedestrian malls, bike trails, train stations with bike racks. Bikes and pedestrians need facilities. There needs to be dedicated bike paths that are not street-side that connect villages. A 2 mile commute by bike takes shorter time than driving and parking. (3)
    - Planning must consider all modes of transport and make winter travel possible by bike and walking; roads must accommodate cars, bikes and pedestrians (bike lanes and sidewalks). (2)
    - Use the Safe Routes to school program to tie bike routes to environmental benefits so children make the connection.
- Alternative fuels like biodiesel are needed. Money should be invested in alternative fuels – this should be state mandated. (2)
- Replacing gasoline is not a good solution if ethanol will be the replacement. Gasoline has a higher BTU and ethanol is not as efficient.
- Fuel cell technology and hybrid cars should be a focus. An incentive should be provided to own them such as reduced registration fees and tolls rates.
- Battery technology is needed for electric cars.
- Park and Ride lots should be designed for people leaving the area or commuting and for intermodal, transportation hubs. They should be co-located at shopping centers, community centers, churches, etc. If they are put in village centers, it could promote commerce. In VT, there are municipal park and ride grants for cities/towns to buy and build or use existing lands. VT also has vanpools organized by subscription. (4)
- Maximum parking requirements should be established; develop a model to implement this.
- Build roundabouts (rotaries) instead of stoplights – they make travel more efficient by reducing the amount of slowing down and speeding up. Radial routes should be complemented by concentric routes. (2)
- The State should be a leader in telecommunications. Businesses should pay people not to drive to work. Universal high speed internet technology, like in Europe, is needed for people to work more efficiently at home. (6)
- Enforce a 65 mph speed limit now and roll it back to 55 in the future. (2)
- There should be guidance on no idling, particularly idling school buses and buses that run way below capacity. (2)
- Money should be used to develop a group of New Hampshire Transportation Management Authorities (TMA). The UVTMA is a good example to follow. (2)
- Congestion pricing would be effective.

FORESTRY & AGRICULTURE

- AFW #2 forestry action is flawed, as the action is written to override local control.
- In AFW #6, the term “benefits” should be replaced with “impacts.”
- A local initiative should be created that focuses on reducing food travel to 30 mile radius from farm to table, which decreases transportation costs and emissions. The growing season can be extended through greenhouses. USDA Rural development grants can provide funding. Schools have gotten grants for growing fruits and vegetables.
- There should be land use restrictions and more open space. Preference for land should be given to farmers to grow food locally. Reactivate old farms. Open spaces should allowed be used for

growing food; the state could allow agriculture on virgin lands. New development should be penalized for using farm land when commercial land can be re-used.

- There was a request to develop an action on Food Security and Local Agriculture. Local food benefits the local economy and preserves a working landscape and the rural character of New Hampshire. Win-win for everyone. (2)
    - The Monadnock Farm & Community Connection (MFCC) could be a model for how to connect farmers and consumers and strengthen local agriculture.
- Increased carbon dioxide can be a fertilizer to plant growth, and therefore, crops grow faster with more CO_2.
- A University study found that managing forests is not necessarily better for carbon storage. Biomass can be a band-aid but the state should focus on wind and solar for the long-term. New growth does not sequester faster than old growth.
- Introducing invasive species should be avoided completely.
- Increasing forestry in public lands is a bad idea; the land should be protected as public land for citizens.
- Small initiatives for New Hampshire are good, for example, biomass.
- Biomass could be used for district heating, but there is only so much available. Should look at heating schools, town buildings first.
- Biomass is a threat to the moss community due to the impacts of tree removals, and moss communities store large amounts of carbon.
- Wood burning requires high temperatures to not create dioxins. Biomass is not favored as a renewable energy source. (2)

WASTE:

- Citizens are discouraged that there is no Bottle Bill in New Hampshire. (3)
- Recycling is a huge problem, many towns don't recycle. Recycling should be free so that everyone will participate. (3)
- There is support for waste bioreactors and landfill gas capture. New Hampshire should have more landfill methane projects to reduce methane in the atmosphere and decrease fossil fuel use. Lebanon has a landfill and would like to recover methane for electricity, according to Mayor Hill. (4)
- The Task Force was thanked for covering waste in general, but should make it broader. The following actions were missing from the AFW plan:
    - Use of recycled products for building materials
    - Large scale composting (post-plate)
    - Zero waste policy needed (bioreactors encourage waste and resource consumption)
- The state should move away from a disposable economy by making goods that last. Products should be designed with less inherent waste, particularly minimizing packaging. (2)
- A funding mechanism could be established by taxing waste. Also, tax products that have excess packaging. Avoidable taxes can help change the market.

Part 4

Summary of Written Public Comments Concerning the Additional Electric Generation (EG) Potential Actions

Received

October 2008

PUBLIC COMMENT SUMMARIES
THE STATEMENTS CONTAINED IN THIS DOCUMENT DO NOT REPRESENT THE POSITION OF THE CLIMATE CHANGE POLICY TASK FORCE OR NHDES AND HAVE NOT BE FACT CHECKED

STATE OF NEW HAMPSHIRE
Department of Environmental Services

MEMORANDUM

DATE: November 17, 2008

TO: Thomas S. Burack
Chairman Climate Change Task Force

FROM: Deana Aulisio
Joanne Morin
Chris Skoglund

Air Resources Division

SUBJECT: **Summary of the Public Comments Regarding Four Additional Potential Actions in the Electricity Generation and Usage (EGU) Sector**

Introduction:

This memorandum provides a summary of the written public comments that NHDES received from a total of 14 individuals and organizations regarding four new Potential EGU Actions. **THE SUMMARY BELOW, THEREFORE, DOES NOT REPRESENT THE POSITION OR OPINION OF THE MEMBERS OF THE CLIMATE CHANGE POLICY TASK FORCE OR NHDES**, but instead is a document to assist in the Task Force's deliberations and the final determination of the Actions that will be included in the New Hampshire Climate Change Action Plan to be submitted to Governor Lynch in December 2008.

Background

Per the request of the Climate Change Policy Task Force, following the 6th Task Force meeting, NHDES revised 4 additional Potential EGU Actions and submitted them for written public comment in late October 2008. These Actions include:

1. EGU 2.6 Importation of Canadian Hydro and Wind Generation
2. EGU 2.7 Allow Regulated Utilities to Build Renewable Generation
3. EGU 2.8 Identify and Deploy the Next Generation of Electric Grid Technologies
4. EGU 2.9 Promote Distributed Generation

This comment period, lasting two weeks, provided members of the public an opportunity to submit comment on these new Potential Actions. These Potential Actions, which were developed outside of the technical/ policy working group process, were not available for review and comment during the initial public comment period held in late September 2008. During this first comment period, a total of 5 Public Listening Sessions were held around the state and the Task Force received verbal and written comments on the 100+ Potential Actions that had been developed by the six technical/ policy working groups engaged in the process.

The written comments have been summarized in this memorandum have been organized by Action and by commenter in order to provide a clearer understanding of the range of views surrounding each of the Actions submitted for comment. **THIS DOCUMENT PARAPHRASES OR DIRECTLY QUOTES FROM THE SUBMITTED COMMENTS IN ORDER TO CONVEY, AS ACCURATELY AS POSSIBLE, THE POSITIONS ASSERTED BY CONTRIBUTORS. THE TIMING OF THIS PROCESS HAS NOT ALLOWED FOR FACT CHECKING OF THE INDIVIDUAL COMMENTS.**

EGU 2.6 – Importation of Canadian Hydro and Wind Generation

Cleve Kapala at TransCanada supports addressing climate change issues by increasing the supply and availability of renewable energy resources to customers in New Hampshire. They question, however, whether a reliance on Canadian sources of hydro and wind are a "complimentary policy" as stated in the Action 2.6 Summary or are, instead, harmful to the development of non-carbon generating assets in New Hampshire. As Action 2.6 correctly observes, Canada is developing "vast new hydro and wind generation resources, which are greater than their local needs". In fact, those resources are to some extent already in place and would, presumably under the recently adopted RPS standards, be fully capable of swamping the New Hampshire electricity and renewable energy credit market and depressing prices to the extent that indigenous renewable resources or development projects under consideration would be at a distinct disadvantage. Facilitation of the importation of Canadian hydro and wind would potentially undermine renewable energy goals in New Hampshire. The State should not be taking steps in the name of "Climate Change" to destroy or hinder the economic development opportunities associated with renewable energy resources that are sited within New Hampshire.

The Action Step correctly identifies that building additional high voltage transmission interconnections with Canada would be a facilitating step for imports. They respectfully request that the New Hampshire intrastate issues be addressed and resolved by transmission providers prior to embarking on efforts to create additional interstate and international linkages that don't facilitate economic development issues and other opportunities within New Hampshire.

Omitted from the Action Step discussion is the tie between the existing RPS rules and the proposed importation of Canadian hydro and wind. The existing RPS rules in every state, as they presently stand, allow qualifying renewable imports to count if the energy is "delivered" to NEPOOL. Essentially the only requirement is "delivery". TransCanada would describe that as a "Seller's convenience" delivery standard. In Massachusetts, legislation was recently passed as the Green Communities Act (GCA) to begin to deal with importers and the utility preferences identified in this draft Action Step. TransCanada believes this issue threatens the further development of renewable energy resources in New England. Recently in Maine, the chair of the Joint Committee on Utilities and Energy of the State Senate went on record with the NEPOOL Markets Committee with respect to this issue. It is TransCanada's view that New Hampshire's Climate Change Policy Task Force should also reconsider and refine their approach to imported renewable power and its application to the RPS.

Donald M. Kreis, an associate professor at Vermont Law School considers all four new actions under consideration for the EGU sector to be sound recommendations that the Task Force should incorporate into its report. That being said, the Task Force should refine the recommendation in certain respects. The Task Force should acknowledge that locally produced hydro and wind power is more economically prudent than imported power.

The Task Force should also confront the ratemaking and restructuring implications of a plan to import hydro power more forthrightly than it does in the current draft. Vermont relies on Hydro Quebec for the bulk of its electricity. The resulting lack of hedging has placed Vermont at a significant disadvantage at times when its utilities were locked into long-term contracts at rates significantly higher than those from other sources. At other times, the price is lower for hydro

power, but Vermont still must worry that contracts will eventually end and they could face a rate "shock".

Most importantly, Action 2.6 appears to casually adopt a significant retrenchment from the industry restructuring the Legislation embraced 12 years ago with RSA 374-F, specifically with the drafts suggestion of a "primary cost approach" to building a new transmission line to link Hydro Quebec. In effect, this is a return to the integrated, least-cost planning process that applied to vertically-integrated electric utilities prior to the unbundling of retail electric rates and the "theoretical" opening of retail energy supply to competitive procurement. The state should be skeptical of its regulated electricity paradigm.

Dalton Catchpaugh from Demand Side Technologies LLC believes New Hampshire is occupant of a fragile planetary ecosystem that is showing severe signs of strain from expanding global population and continuously increasing fossil fuel consumption that is adding to the problem of global warming.

The question of whether or not New Hampshire should perpetuate its dependence on foreign energy commodities has, therefore, no place in this discussion. While it is true that in the boreal reservoirs of Canada, greenhouse gas emissions are typically only 2 to 8% of any kind of conventional fossil-fuel thermal generation, environmentalists are still against them for many reasons: 1) Fish populations can be impacted if fish cannot migrate upstream past impoundment dams to spawning grounds or if they cannot migrate downstream to the ocean, 2) Hydropower plants can cause low dissolved oxygen levels in the water, a problem that is harmful to riparian (riverbank) habitats, 3) Humans, flora, and fauna may lose their natural habitat, 4) Local cultures and historical sites may be impinged upon.

In any case, New Hampshire does not need to import foreign electricity for a premium that New Hampshire citizens will pay for, and especially when the New Hampshire Wind Energy Association (WEA) will have wind turbine capacity of 177 MW by 2012. This is enough to replace PSNH's Schiller station, which is currently burning wood (i.e. exploitation and depletion of a natural resource). During this decade, WEA estimates >1200MW wind capacity; enough to replace Merrimack and Newington fossil fuel fired plants.

Also, the fact that Hydro Quebec is a state owned utility should be addressed seriously, considering that the province of Quebec is a politically unstable Canadian territory. In the last Canadian federal election, a separatist Bloc Quebecois declared victory in the province, which could potentially lead to Quebec's separation from Canada. Also of concern is how the government of Quebec openly sanctions, and always denies, institutionalized discrimination against Anglophones and other minorities living in the province. For New Hampshire to import electricity from Quebec would send a negative message of approval for the perpetuation of abrogated human rights - quite the contrast from our adherence to the tenet that all humans are created equal and have natural and unalienable rights to life, liberty and the pursuit of happiness.

Representative Frederick W. King from Coos District One believes if New Hampshire wind projects are allowed to be developed with the appropriate transmission line up grades the State may not need power from Canada. Better to spend the State's rate payer's funds on home grown power that will greatly enhance our local economies and will also add to our property tax base before using Canada's expanded power generation. This will also create more jobs for people in New Hampshire rather than outsourcing them to Canada.

Alexander P. Lee from Project Laundry List indicated that methane emissions from submerging plant material under a reservoir are a significant concern with hydroelectric dams. Methane is a more potent greenhouse gas than carbon dioxide, and it should be referred to as such in the Plan. He referenced an article by Dr. Ivan Lima of Brazil's National Institute for Space Research, who personally commented on the topic in a later email correspondence (see below). Not much data exists on the impacts of boreal dams in Northern climates compared to Amazonia. Lee did, however, quote the IPCC, on the uncertainty of measuring CH4 from of highly variable biospheric sources. The precautionary principle and the high uncertainty alone should militate against "playing with fire" (or water, if you will).

Furthermore, NASA geophysicist Dr. Benjamin Fong Chao has found evidence that the weight of the world's collective reservoirs is speeding up the Earth's rate of spin and is changing the shape of Earth's magnetic field. (Source: "Dams alter Earth's orbit, scientist says" in Ottawa Citizen, March 3/1996, pg. D8 (based on) Malcolm W. Browne's late Feb./early March '96 report in the New York Times.) There is also a growing body of evidence that large dams contribute to increased seismic activity. Three Gorges in China, Katse Dam, Hoover Dam being a few examples cited. While these last couple are among the more controversial assertions in this memo, according to the World Commission on Dams report, where the reservoir is large compared to the generating capacity and no clearing of the forests in the area was undertaken prior to impoundment of the reservoir, greenhouse gas emissions from the reservoir may be higher than those of a conventional oil-fired thermal generation plant. (http://www.newscientist.com/article.ns?id=dn7046.)

EGU 2.6 states the environmental benefits in the Action Report. Lee believes the first sentence is broadly applicable to almost any renewable or sustainable energy import. There are "renewable" resources that are not sustainable; renewability does not have anything to do with the inherent or endogenous carbon intensity of an energy source. It would be more accurate to say that importation of hydropower reduces air pollutants associated with many typical non-renewable energy sources. Also, the NIMBY nature of the last sentence of that paragraph is irresponsible, as the costs will now be born by populations out of region but inhabiting the same planet, and it is not at all clear that out of region power with its built-in transport costs, creates a net environmental gain.

EGU 2.6 also states, "This measure provides short term value in the form of wages." Does this mean wages for Cree and Quebecois or American utility personnel installing high-voltage transport systems? This is an overly-politicized sentence that is more reflective of North Country woes and a declining employment rate than sustainable economic policy. It should at least be changed to read, "This measure provides short term value in the form of wages for a number of limited time jobs along the transmission corridor."

Lee questioned how the Task Force arrived at the 6.09 MMTCO2e figure for CO2 savings. What is the mechanism for a member of the public (with or without a Ph.D.) to contest this expert assertion or dissect the model employed to reach it? His other big concerns with Hydro-Quebec's hydro-power are environmental and geo-political, but do not relate to climate change per se and were not expressed in his commentary.

Dr. Ivan Lima of Brazil's National Institute for Space Research indicated that there are many differing aspects regarding dams and climate change. Methane emissions or capture from

temperate/boreal reservoirs is not a big issue today, but as temperature rises, it might be a matter of concern, because methanogenic bacteria metabolism is dependent on temperature, an optimum being between 30 to 40 Celsius degrees. On the other hand, a recent article in "Science" (http://www.sciencemag.org/cgi/content/abstract/1154580) shows that sea level rise has been lower than expected due to water storage in the continents by damming global rivers.

Other researchers say that reservoirs might be storing carbon. "Dam friends" are usually taking this argument to favor damming projects. The following paper examines the linkages between the carbon cycle and sedimentary processes on land. Available data suggest that sedimentation on land can bury vast quantities of organic carbon, roughly 10^{15} g C yr^{-1}.
(http://www.agu.org/pubs/crossref/1998/98GB00741.shtml)

Knowledge on carbon dynamics in freshwater ecosystems has increased precipitously. A research paper will be published soon considering methane capture from tropical (Amazon) dams (Ramos et al.).

Presumably, HydroQuebec has political and economic strength and good arguments to sustain damming policy in North America. However, they (and other companies) must diversify energy resources. Who guarantees water resources will be suitably available for the next 50-100 years in Quebec? IPCC scenarios predict an increase in precipitation in the long term, but surely accompanied by extreme events of rainfall (spring) and evapotranspiration (summer) (http://adaptation.nrcan.gc.ca/assess/2007/ch5/3_e.php). This might be also true for tropical countries like Brazil. The key concept is "energy sector diversification to increase resilience" under indeed "barely" known future climate.

Randy Bryan of ConVerdant Vehicles applauded the recommendations for improving long distance transmissions lines to enable greater import of cleaner Canadian hydro and wind resource power. However, importing is not a sufficient answer. The document might do more to advance our own economic energies for local clean generation facilities.

Melissa A. Hoffer speaking for the Conservation Law Foundation hopes the Task Force ensures an open and transparent assessment to evaluate properly the full-range of potential environmental and social impacts associated with this proposed Action, including increased mercury pollution from rotting vegetation due to flooding; carbon dioxide pollution from damming; and displacement of indigenous peoples. CLF agrees that an increase in affordable clean power generation should be strongly encouraged, including appropriately evaluated Canadian wind and hydro power. EGU Action 2.6 appears designed to support such generation only in the event that it does not result in *any* rate increase. CLF urges the Task Force to support such generation so long as it does not involve an *unreasonable* rate increase. CLF also notes the desirability of linking EGU Actions 2.6 and 2.7 to a commitment to reduce New Hampshire's reliance on non-renewable generation. CLF urges the Task Force to consider conditioning implementation of these Actions on reductions in carbon dioxide emissions from existing sources in New Hampshire.

Christopher Sherman from New England Power Generator's Association (NEPGA)[*] commented on the old action of *Importation of non-CO_2 emitting power into New Hampshire from outside*

[*] These comments may be changed as NEPGA inadvertently commented on old drafts of 2.6 – 2.7 and overlooked 2.8 – 2.9.

the State. NEPGA recognizes that an effective climate action plan both anticipates and needs external resources to be successfully implemented. The markets for renewable energy have historically been motivated by regional policy efforts. The various state RPS programs have been remarkably consistent in the goal of removing market barriers to the generation and transmission of renewable energy, while at the same time preserving the integrity of the competitive energy markets and the economy in New England.

Developments in transmission infrastructure will indisputably impact the consumer price of electricity, as well as the decisions of private developers to invest in supply side resources. NEPGA has a direct interest in ensuring that the decisions to expand transmission infrastructure are made in a prudent manner that best represents broad stakeholder interests. The New England bulk power system is comprised of more than 8,000 miles of high voltage transmission lines and several hundred generating facilities. NEPGA's members work cohesively to assure the bulk power supply system within the New England control area conforms to proper standards of reliability through their participation in the open-access trading platform that produces the lowest-cost solution to meeting the demands for reliable electricity. NEPGA's members have been actively involved in the development of these market systems and have concerns about such a broad policy that favors transmission solutions without a more detailed policy for least-cost analysis and prudency review. NEPGA believes that, as in all cases, a transparent stakeholder process should be utilized prior to the approval or construction of new transmission facilities.

EGU 2.7 – Allow Regulated Utilities to Build Renewable Generation

Bill Gabler from Clean Power Development rejected the proposed action and suggested in be removed from the Task Force recommendations. His reasoning is based on Bill RSA-374-F, passed in 1996, which proposed to restructure the New Hampshire electric utility industry by reducing costs for all consumers of electricity by harnessing the power of competitive markets, while at the same time maintaining safe and reliable electric service with minimum adverse impacts on the environment. Increased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that requires unbundling of prices and services and at least functional separation of centralized generation services.

While there is clearly a need for additional renewable generation, it is just as clearly the role of the competitive market to provide it. There are currently 858 MWs of renewable power generation proposed to be built in New Hampshire, all if which is being offered by competitive suppliers risking their own money, not that of the ratepayers of New Hampshire. Just like every other company in the state, PSNH is legally entitled to form an unregulated subsidiary and enter the competitive market to build renewable power plants, using shareholder and free market monies.

EGU 2.7 cites a critical need for at least one 50MW biomass plant, and up to three more 20-25 MW units. His company, Clean Power Development, is currently working on developing an array of plants that would provide that biomass power, including a 50 MW facility in Winchester, a 35 MW plant in Merrimack, a 27 MW plant in Berlin, and a fourth biomass plant in the works.

Cleve Kapala at TransCanada believes an important driving force behind the state policy embodied in RSA 374-F, which put the state on the course toward deregulation of the electric

generation sector in New Hampshire, is that it is undeniably challenging to accurately forecast future electricity prices and costs associated with large capital projects in a volatile economy. Ratepayers should not be forced to take risks associated with new generation investments. Regulated utilities doing business in New Hampshire are investor-owned. TransCanada Corporation operates both regulated and competitive businesses successfully. TransCanada would have no objection to regulated utilities building generation as long as the associated risks fall to utility investors instead of its ratepayers. Climate change policy should complement not undermine the competitive electricity market and the policy embodied in RSA 374-F by the New Hampshire Legislature.

The reality exists that there are renewable generation development companies that have projects waiting in a queue to build. Those businesses are risky, margins are tight, and access to transmission is frequently poor and costly. TransCanada is proud of its recent redevelopment of Vernon Station on the Connecticut River but acknowledges that what began as a S30 million project ended up costing well over $50 million. The risks, challenges and rewards should be shouldered by investors, either utility or competitive, not captive ratepayers going forward.

On the other hand, Action 2.7 properly acknowledges that transmission is a major constraint associated with new renewable generation. This Action states that "customers in New Hampshire and potentially throughout New England would pay for enhanced transmission". While TransCanada readily acknowledges that transmission infrastructure is also capital intensive and risky, it will likely remain regulated and therefore ratepayers (i.e., “customers”) are presumably safeguarded by regulatory oversight. The resulting investments in transmission upgrades will have public benefit. New Hampshire should support policies that encourage regionalization of the costs of transmission upgrades that will bring benefits to the region, as well as those that provide mechanisms for renewable generation developers to share the costs of transmission upgrades with ratepayers.

Donald M. Kreis, an associate professor at Vermont Law School disagrees with New Hampshire’s restructuring of the electricity sector, which has prohibited electric utility development and ownership of new generation capacity. As the draft action points out, PSNH is the only utility that owns a generation fleet and is actively pursuing to expand, particularly with new renewable generation facilities in the near term. Rival generation companies have impeded PSNH’s efforts to gain legislative authority to do so, by alleging that, as a regulated utility and monopoly distribution provider, PSNH would gain unfair advantages over other energy producers. If the state used its authority to subject PSNH to integrated least-cost planning requirements, New Hampshire would have more control over the development of its generation infrastructure, rather than leaving it to the variability of a competitive marketplace, that has not yet stepped up to the task.

Ferrell Seiler from the NH Wind Energy Association (WEA) is interested to know when the proposed actions (EGU 2.6 & 2.7) will happen, who will pay for new generating assets, and who can build these projects faster and cheaper. PSNH wants legislation “that gives regulated utilities authority to construct and/or acquire renewable generating assets,” including 50 MW of biomass by 2012, 144 MW of wind power in 17 years, 75 MW of distributed generation, and 12 MW of photovoltaics by 2025. PSNH deems customers of the regulated utility would pay to construct new generation facilities and transmission.

Neither one of these Action Items suggests the elimination of CO2 from the mix of New Hampshire generating plants. There was very little discussion to stimulate the development of renewable energy alternatives to Merrimack station. In the five years that it will take for PSNH to spend more than one-half billion dollars of ratepayer money to build the scrubber, 257 MW of wind power could be operational—at no capital cost to the ratepayer. By 2016, an additional 509 MW of clean wind power could be financed and built—again at no capital cost to the ratepayer. Another 500 MW of wind power could be in place by 2025. PSNH should be encouraged to abandon its plans to build the scrubber at Merrimack and be allowed to recover the money it has spent so far in its development.

Electricity generation in New Hampshire should no longer be based on the continuation of coal‐fired generation. The CCPTF should encourage the development of "Zero Carbon" electricity generating facilities. By vigorously supporting wind energy and other renewable sources of power, New Hampshire can embrace a "Zero Carbon" future, develop a green, jobs‐rich, economy, and continue to meet future energy demand. In his public comment, Seiler included a list of ISO-NE renewable energy projects planned in New Hampshire, as well as NH WEA's proposed project list.

Dalton Catchpaugh from Demand Side Technologies LLC recognizes that most consumers receive their electricity from the conventional centralized systems of generation and delivery. Unfortunately, these centralized services are plagued with unpredictable shortages followed by temporary surpluses, incredible cost overruns, and highly unstable price structures. Future survival of the electric utilities depends on how well they accept and adapt to current trends and conditions of dwindling oil and natural gas supplies and resource instabilities. There is a need to accelerate technology development and provide support in public/private collaborative efforts to invest in emerging low-impact generation technologies. However, it is a far better investment to incorporate energy-efficient appliances and equipment into homes and commercial structures than it is to build a bigger electrical generator to supply a load made unnecessarily large by inefficiency.

Representative Frederick W. King from Coos District One was in the State Senate when SB 472 became law in 2000. This was in answer to the PSNH bail out. The state policy established then was to have this company be a pole and wire company going forward. In fact, the bill stated that by July 1, 2001, the sale of PSNH fossil generation assets would take place unless the commission found otherwise. RSA 369-B:3a effective April 23, 2003 now states that the PSNH assets were not to be sold before April 30, 2006 but implies that they should still be sold. In fact, recent attempts to allow the company to construct new generation have been denied by the Legislature. It is long past time to allow for competition in the generation of electrical energy. The State should allow for such competition to go forward, and until there has been a fair chance for this to occur, PSNH should maintain their current plants but should not be allowed at this time to construct any new facilities. Representative King also supports EGU Actions 2.8 and 2.9 without comment.

Randy Bryan of ConVerdant Vehicles applauded the document's recommendations for No/Low carbon generation facilities development, and recommendations for enabling their development. He disagrees with including biomass in any such "clean" definition, except where their GHG emissions are significantly and verifiably lower than current average power-plant emissions profiles. New Hampshire is not improving its terrestrial carbon absorption coefficient by harvesting and burning biomass, and we need to reduce our carbon emissions. No and low

carbon emissions qualifications should be further clarified and used for consideration of new plant proposals.

Melissa A. Hoffer speaking for the Conservation Law Foundation strongly supports this proposed Action. The EGU Working Group has documented the need for increased renewable energy generation and correctly notes the significant resources and experience that Public Service of New Hampshire (PSNH) could provide in the development of such generation. Authorizing PSNH to construct and/or acquire, as well as operate and own, renewable generation assets, however, raises legitimate concerns about the potential for PSNH, as a transmission and distribution owner and operator, to give preference to its own generation over that of other renewable generators. This concern potentially could be addressed by limiting the size or type of renewable generation that a regulated utility can own.

Debby from Real Green Goods hopes that tidal flow electricity generation in the Great Bay is under consideration in New Hampshire.

Christopher Sherman from New England Power Generator's Association (NEPGA)[*] commented on the old EGU 2.7 action of *Regulated electric Low and Non CO2 Emitting Supply side Resources.* NEPGA is strongly opposed to utility participation in the energy supply business as such a reversal of policy will have a detrimental effect on electricity consumers, merchant generators of electricity, and competitive electricity providers. From a practical perspective, a competitive wholesale market for power in New England has delivered benefits to customers and the region that would have been impossible under the regulated structure that had been in place for many years. This success has been the product of substantial new investment in efficient generating plants. Within ISO-NE there are market mechanisms that currently exist and that are being developed and implemented to meet the local reliability and sustainability needs of the region through competitive market signals, and NEPGA supports that process as the most appropriate mechanism to obtain desired low and non-CO2 emitting generation capacity in New Hampshire.

Prior to the restructuring of the market, electricity consumers were vulnerable to a persistent market situation where there was only one provider of electricity, as opposed to a vibrant electricity market where participants' survival was based upon superior innovation and efficiencies. The lack of economic competition for electricity led to unavoidable cost overruns and stranded costs by utilities that experienced no competitive market pressures. The provisions in draft EGU Action 2.7 that advance utility owned generation by developing renewable energy resources outside of the private sector will ultimately cost ratepayers more money. Vertically integrated utility companies are entitled to recover their costs plus a return on those investments from ratepayers. Merchant energy companies, on the other hand, have no such guaranteed cost recovery. Rather, they are forced to cover their costs from the markets and must answer to their shareholders when their performance is sub par.

As a result of increased construction costs, utility plant capital costs have risen dramatically in integrated utility markets. On August 22, 2008, the New Hampshire Public Utility Commission opened an investigation following a quarterly earnings report filed by Northeast Utilities with the Securities and Exchange Commission that disclosed that the estimated cost of installing a wet flue

[*] These comments may be changed as NEPGA inadvertently commented on old drafts of 2.6 – 2.7 and overlooked 2.8 – 2.9.

gas desulphurization system, also referred to as scrubber technology, at Public Service Company of New Hampshire's ("PSNH") Merrimack Station, had increased by approximately 80% over the original estimate. Moreover, on August 25, 2008, PSNH filed a motion seeking to accelerate the permitting schedule "to mitigate the harm that will be caused by delays in the scrubber project." An acceleration of the schedule merely denies other stakeholders the opportunity to propose more cost-effective methodologies for achieving the same results, ultimately adding costs to an already overburdened rate base. These examples are clear signs of larger systemic flaws in the vertically integrated methodologies for procuring energy infrastructure. The consumers of New Hampshire deserve a more straightforward and transparent approach to resource development.

For the foregoing reasons, NEPGA opposes the reentry of electric utilities into the energy supply business, and specifically opposes Action 2.7. Notwithstanding the foregoing, NEPGA is supportive of New Hampshire's objective to increase the amount of renewable generation to achieve its environmental and sustainability goals. NEPGA supports these initiatives, provided that such initiatives are not advanced at the expense of electric consumers or the competitive wholesale electricity market. NEPGA maintains fuel neutrality in its membership and policy initiatives, as their members represent a highly diverse portfolio of generation. They feel uniquely qualified to assist in the development of market policies that promote new renewable and sustainable generation infrastructure in New Hampshire.

EGU 2.8 -Identify and Deploy the Next Generation of Electric Grid Technologies

Cleve Kapala at TransCanada supports Smart Grid technologies. Optimizing energy efficiency and conservation of natural resources are goals that should be readily shared by all participants in electric markets.

Donald M. Kreis, an associate professor at Vermont Law School finds the addition of a state-of-the-art "smart" electric grid as an important public policy objective for New Hampshire. However, the relevant technologies are still in their early stages and a key challenge is in avoiding the wrong path. Action 2.8 lacks a coherent vision. Dr. Kreis suggests that an initiative can be implemented in four discrete phases: 1) smart load, 2) smart monitoring, 3) smart dispatch, and 4) a fully digitalized grid along the lines of "Intelligrid" initiated by the Electric Power Research Institute. Smart load is already a possibility, the others may be in the next 20 years. The PUC should be charged with pursuing the appropriate initiatives over this time period.

Dalton Catchpaugh from Demand Side Technologies LLC understands that our current grid infrastructure is straining under outdated technology and increasing demand for high-quality power. The United States may need to invest close to $500 billion in infrastructure to keep the current grid functioning to meet projected growth during the next 20 years. Utilities, governments and end-users worldwide recognize the need for implementation of Smart Grid technologies. With the application of intelligent energy technology, the Smart Grid will optimize the use of generation resources and the delivery of power. When the system gets close to capacity, the Smart Grid can start a pre-planned program to shed load from non-critical appliances and equipment throughout the grid. One issue is that utilities will need to recognize that residential customers don't like power companies controlling their homes.

The development of automated Energy Management and Control Systems (EMCS) and Intelligent Electronic Devices (IEDs) with sensing and measuring technologies, are the missing

essential elements in residential and small commercial micro-grid environments for energy accounting, budgeting and faster demand side management (DSM) response. Building owners should install EMCS - IEDs because with the eventuality of building efficiency certification requirements, EMCS – IEDs installed as a permanent part of a building's infrastructure will become the norm. Municipal, state and federal financial incentives should be made available to building owners who install EMCS - IEDs to enhance energy efficiency on their premises. Demand Side Technologies LLC is currently developing EMCS - IEDs to enhance energy efficiency in homes and businesses.

DST LLC has pioneered an EMCS system called Priority Power Distribution (PPD) with Communicating Duplex Receptacles (CDR) that comply with the National Electrical Manufacturers Association (NEMA) Standards. A PPD system promotes energy efficiency in buildings by providing businesses and homeowners with a tool that locates unnecessary energy losses and identifies energy inefficient appliances that increase utility bills. Thus, measures to save energy, money and the environment can be implemented. PPD – CDR systems are a sustainable EMCS technology that has reached the demonstration phases of the innovation chain. The development of a bench scale prototype and full-scale demonstration must be completed to prove system capability and market relevance. DST LLC has performed an energy and economic analysis on the benefits of using their PPD system in the residential sector. Details can be found in Catchpaugh's public comment available from NHDES.

DST's hopes State government support for the development of sustainable technologies, like their PPD system, will help turn knowledge and innovation into strategic opportunities, industrial development, market entry, and international commercial exploitation that will improve the technology base, create jobs and prosperity in New Hampshire.

Randy Bryan of ConVerdant Vehicles applauded the recommendations for "smart grid" preparations, as applied to commercial, industrial and residential net metering, real time pricing, and renewable energy generation policies. However, there is no specific recommendation for in-state infrastructure improvement to handle electric energy demand growth that will arise from increasingly electric transportation needs. Charging at home at night is a simple start, but fast charging technologies are also in development and will be deployed along major highways first, then increasingly into the cities and towns.

EGU 2.9 -Promote Distributed Generation

Cleve Kapala at TransCanada generally supports Action 2.9 but notes that although SB 451 authorizes utility investment in distributed generation, opportunities for customers to invest in distributed generation already exist in the marketplace without the necessity of guaranteed ratepayer/utility funding.

Donald M. Kreis, an associate professor at Vermont Law School would like to see the Task Force adopt this recommendation. There are no sound policy reasons to provide taxpayer-funded or ratepayer-funded incentives to distributed generation facilities. As currently drafted, Action 2.9 refers somewhat to incentives, but should be revised to rule out the possibility of incentives to utilities for allowed return on equity derived through conventional ratemaking. These incentives are unnecessary, as New Hampshire already obligates utilities to deploy their capital on an efficient, least-cost basis and transgress longstanding, constitutionally-defined cost-of-service ratemaking principles. If utilities are unwilling to place their corporate resources behind the

development of customer-sited distributed generation, then in a restructured industry, there is every reason to open this opportunity to the competitive marketplace.

The Task Force should also make a slight revision to its characterization of the parties affected by implementation of the proposed action. Currently, the draft refers to utilities and consumers as the parties paying for implementation but lists only consumers as the parties benefiting. Customer-sited distributed generation represents business opportunities and will benefit investors of the utilities and other businesses that pursue these opportunities.

Dalton Catchpaugh from Demand Side Technologies LLC points out that there are now several flexible, multi-option renewable energy technologies that can aid the transition away from a rigid, highly centralized infrastructure. These technologies provide an environmentally benign, safe and sustainable solution to the problem of electrical generation; their only drawback is the high initial cost of investment and installation.

Net metering is a low-cost, easily administered method of encouraging demand side investment in renewable energy technologies. Some utilities are opposed to net metering because they believe it may have a negative financial impact on them. However, a number of studies have shown that net metering can benefit utilities. These benefits include reductions in meter hardware and interconnection costs, as well as in meter reading and billing costs.

Grid-connected renewable energy technology systems can also help utilities avoid the cost of additional power generation, increase the reliability and quality of electricity in the grid, and produce power at times of peak usage, when utility generation costs are higher and they often need the extra power.

Revenues from exported electricity should be invested to accelerate the agricultural and transportation transition to a renewable energy infrastructure. Governments should use tax incentives to free the extra dollars needed to invest in renewable energy technology systems for our homes and businesses.

E.H. Roy from Nexgen Energy Systems had two comments regarding a photovoltaic (PV) strategy:

1) Consider changing the existing incentive program to provide larger incentives to folks who purchase PV systems that incorporate equipment components manufactured in New Hampshire - this will encourage such industries to move to New Hampshire.

2) Consider production-based incentives (x amount for each kilowatt hour produced by the system) rather than lump sum incentives or in concert with lump-sum incentives. This approach encourages PV system owners to ensure that their systems are working properly at all times.

General Comments

Cleve Kapala at TransCanada also noted that the membership of the Governor's Climate Change Policy Task Force has not included all stakeholders. There has been no representation from the competitive and unregulated generation sector, whose members own clean, renewable generating assets in New Hampshire, provide local jobs, pay taxes to municipalities and the State, and do it

all without receiving guaranteed cost recovery from ratepayers. Accordingly, they were pleased for the opportunity to comment on these Actions.

Ronald Lajoie from Residents Environmental Action Committee for Health (REACH) applauds the current effort to explore and promote the importation of Canadian "clean" power such as hydro and wind, the development of certain renewable generation projects, the deployment of next generation electric grid technologies, and the promotion of distributed generation. However, REACH strongly urges the Taskforce not to allow any language in the group's report which could be interpreted as endorsing the incineration or processing of the wood component of construction and demolition debris (as defined in RSA 149-M:4, IV-a), or any mixture or derivation, as part of the Taskforce's recommendations regarding alternative energy sources. In the process of encouraging alternative, cleaner and more efficient energy sources, we must never inadvertently take steps backward with regard to the current hard-fought protections afforded our environment and the health of our communities.

Representative Frederick W. King from Coos District One is a member of the Senate Bill 383 committee that was created to develop a plan for the expansion of transmission capacity in the North Country. He feels as though there is some overlap between the SB - 383 committee and the Task Force.

Randy Bryan of ConVerdant Vehicles feels the report should address the most important aspect of this monumental energy change, and that is how to engage our local industry and consumers to engage in and speed this energy transformation. Policy consideration should be given to how to incentivize consumers and businesses toward "green" solutions. Energy transformation may be the next internet-like phenomenon to sweep the globe, only much larger in scope. Our country's current economic malaise can partly be attributed to our stagnating economy output vs. our ever rising desire [spending habits] for a better standard of living. We must put economic growth as a top priority, and make this growth "green", especially in our energy policies.

Part 5

Written Public Comments
Concerning the Additional Electric Generation (EG) Potential Actions

Received

October 2008

The comments in this document were mailed or submitted directly to NHDES and the assertions they contain do not represent the position or opinion of the members of the Climate Change Policy Task Force or the NH Department of Environmental Services.

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Dear Alexander (Project Laundry List), Christopher

I am working at Embrapa Pantanal and saw your message only this weekend from Inpe's mailbox.

There are so many aspects regarding dams and climate change. A real challenge to decide between heaven and hell...

Alexander has raised several relevant issues. I would say methane emissions or capture from temperate/boreal reservoirs is not a big issue today, but as temperature rises, it might be a matter of concern, because methanogenic bacteria metabolism is dependent on temperature, optimum beteween 30 to 40 Celsius degree.

Another recent feedback described in "Science" (http://www.sciencemag.org/cgi/content/abstract/1154580) shows that sea level rise has been lower than expected due to water storage in the continents by damming global rivers.

Other researchers say that reservoir might be storing carbon. "Dam friends" are usually taking this argument to favor damming projects. Such hypothesis has been previously raised:

"For clastic sedimentation, masses of sediment were considered for burial as reservoir sediment, lake sediment, and combined colluvium, alluvium, and aeolian deposits. When the ensemble of models is examined, the human-induced burial of $0.6\text{-}1.5 \cdot 10^{15}$ g yr^{-1} of carbon on land is entirely plausible. "
(http://www.agu.org/pubs/crossref/1998/98GB00741.shtml)

Knowledge on carbon dynamics in freshwater ecosystems have increased a lot. We are now able to develop simple models and innovate to deal with drawbacks and to take benefits from positive feedbacks
(http://www.hidroinformatica.org.br/unescoWorkshop/docs/2.8%20Lima%20I%20B%20T%20-%20GHG%20Life%20Cycle%20Analysis%20and%20Emerging%20Technologies.pdf)
We will soon publish another research paper considering methane capture from tropical (Amazon) dams very soon (Ramos et al.)

I presume HydroQuebec has political and economic strength and good arguments to sustain damming policy in North America. However, they (and other companies) must diversify energy resources. Who guarantees water resources will be suitably available for the next 50-100 years in Quebec? IPCC scenarios predict an increase in precipitation in the long term, but surely accompanied by extreme events of rainfall (spring) and evapotranspiration (summer) (http://adaptation.nrcan.gc.ca/assess/2007/ch5/3_e.php).

This might be also true for tropical countries, as Brazil. The key concept is "energy sector diversification to increase resilience" under indeed "barely" known future climate.

Best regards,
Ivan (Bergier)

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Randy Bryan
ConVerdant Vehicles

NH CCPTF,
Thank you for all your collective efforts to analyze the state's future energy needs and to formulate these policy recommendations. You are to be commended for your work.

I read the EGU Sector's New Actions Under Consideration with some interest, as I am personally and professionally very concerned with these issues. I am personally concerned for the GHG contributions we make toward Global Warming and for the need and opportunities for providing solutions. This concern lead me to start a vehicle [plug-in hybrid] conversion business in Concord, NH this year, as my way of contributing to the "solution" and to NH's economic future. My input to your Recommendations is a result of my several interests in this area.

My comments and suggestions:
I applaud the document's recommendations for No/Low carbon generation facilities development, and recommendations for enabling their development.
I also applaud the recommendations for improving long distance transmissions lines to enable greater import of cleaner Canadian hydro and wind resource power. However, importing our solutions is not a sufficient answer. The document might do more to advance our own economic energies for local clean generation facilities.

I would disagree with including biomass in any such "clean" definition, except where their GHG emissions are significantly and verifiably lower than current average power-plant emissions profiles. We are not improving the state's terrestrial carbon absorbsion coefficient by harvesting and burning biomass, and we need to reduce our carbon emissions. No and low carbon emissions qualifications should be further clarified and used for consideration of new plant proposals.

There are no specific "goal posts" that you appear to be working toward. Nor explanation of how or how much these recommended actions will contribute to some agreed upon goal. For instance, the Governor and State have committed with other New England and Northeast States to achieve some Green House Gas emissions reductions over the next couple of decades. I am not familiar with the specific commitments, but suggest that these might serve as suitable "goal posts". Emissions targets for the pro-offered [or any] new plants might help to quantify the level of GHG reductions you intend to attain.

I applaud the recommendations for "smart grid" preparations, as applied to commercial, industrial and residential net metering, real time pricing, and renewable energy generation policies. However, there is no specific recommendation for in-state infrastructure improvement to handle electric energy demand growth that will arise from increasingly electric transportation needs. Charging at home at night is a simple start, but fast charging technologies are also in development and will be deployed along major highways first, then increasingly into the cities and towns. Does this coming trend need study?

And lastly, the report should address the most important aspect of this monumental energy change, and that is how to engage our local industry and consumers to engage in and speed this energy transformation. Policy consideration should be given to how to incentivize consumers and businesses toward "green" solutions, and how to incentivize our businesses to create and provide the "green" energy solutions needed here in NH and around the country and around the world. Fertilize the ground for the right kind of growth.

Energy transformation may be the next internet-like phenomenon to sweep the globe, only much larger in scope. Our country's current economic malaise can partly attributed to our stagnating economy output vs. our ever rising desire [spending habits] for a better standard of living. The only way our country will solve this mess is to grow our way out of it. We must put economic growth as a top priority, and make this growth "green", especially in our energy policies. What better place to address all these Global issues locally than in this NH Climate Change Policy Report

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There should be a section devoted to Transportation, and this may be coming. But, rather than wait for a document I will make suggestions here.

I believe that transportation will become a dominate factor in energy demand and could also affect supply [V2G] over the coming 2-3 decades [the planning horizon for this document]. As the power/energy modes of transportation become increasingly all-electric [likely], the demand for electric power will increase by up to 50%. This huge new load also represents a huge offset of carbon fuel consumption and emissions. The change in transportation fuel can move as quickly or even more quickly than power generation changes [faster amortization schedules]. Detroit and all major car companies will start to produce these vehicles en mass in 2-5 years, and the electric demand change will begin, ready or not. There should be more thought and planning put into this change. In fact, I believe the document-Actions ought to address specific recommendations, projects and policies to advance transportation's change over from oil to electric power, not just react to it. Time of day rates, smart grid/net metering, fee/tax credits, financing/grant incentives for purchases, and tax/grant/financing incentives for research and development should be considered. Find out who cares and find out how to help them.

A transportation section should also address mass transit and maybe even "smart growth" issues. You might prefer rail, or intelligent highways, or local bus routes, but real policy changes are needed to move our path away from the current direction of ever greater suburban sprawl and individual road transport. The assumption for this statement lies in the idea that mass transit uses less fuel/energy and less space per person-mille than individual transport, and that this offsets the need for ever more roads. Look no further than Long Island to know that more roads are not always the answer. Walking, cycling and segways should be encouraged with greater clustering of housing and work. Mass transit should link these denser towns/cities and also within the towns/cities. Our policies should encourage NH businesses to invent and produce these smart growth solutions for use here and for export around the country and world. We should consider ways to finance mass transit projects [private vs public investments] and ways to encourage their use [smart-growth, accessibility and scheduling requirements]. We should get NH'ites as interested to create/produce clean energy solutions as to consume them.

Thank you for reading.
Randy Bryan
ConVerdant Vehicles

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New Hampshire Climate Change Policy Task Force
Draft Action Reports under Development

Energy Generation and Use (EGU) Comments and Recommendations

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EGU Action 2.6 – Importation of Non-CO_2-Emitting Power

The 21st century ushered in a new era of declines in a number of crucial areas: global oil, natural gas and coal extraction, availability of fresh water, yearly grain harvests, economic growth, extraction rates for minerals and ores, climate stability. New Hampshire is occupant of a fragile planetary ecosystem that is showing severe signs of strain from expanding global population and the ideal of continuously increasing fossil fuels consumption that is adding to the problem of global warming. We who participate in the climate change discussion are aware there is an urgent need and recognize that a greenhouse gas emissions management framework should be complemented by enhanced energy efficiency efforts, since slowing energy demand growth is the essential element to emissions intensity improvements.

In order to slow energy demand growth, New Hampshire citizens must consciously choose between exploitation or stewardship; devastation or sustainability. To prevent ecological suicide from becoming our reality each person must accept a sustainable future as the only viable option, accept and realize that we cannot tenaciously continue our obsolete habits, customs and assumptions that we cling to in our persistent maintenance of luxurious, non sustainable lifestyles that simply cannot be rationalized any longer.

Each one of us in New Hampshire must assume the moral responsibility for the circumstances of our lives, and the lives of future generations; adopt the ideals and strict application of the consumer conservation ethic to reduce consumption, increase recycling and reuse of material resources and products, and rethink how to restore compostable organic waste back into the soil, how to recover energy from existing flows of energy, or how to capture energy from renewable energy sources. Our future survival depends on how well we accept and adapt to current trends and conditions, take the initial steps to proactively prepare for plausible technological interruptions, and adopt the ideals of voluntary reduction of consumption and self-sufficiency – personal autonomy with little, or no, technological conveniences from outside of what is produced by a self-sufficient New Hampshire. The question of whether or not New Hampshire should perpetuate its dependence on foreign energy commodities has, therefore, no place in this discussion.

While it is true that in the boreal reservoirs of Canada greenhouse gas emissions are typically only 2 to 8% of any kind of conventional fossil-fuel thermal generation, making these hydroelectric plants essentially nonpolluting, many environmentalists are fighting them for many reasons. 1) Fish populations can be impacted if fish cannot migrate upstream past impoundment dams to spawning grounds or if they cannot migrate downstream to the ocean, 2) Hydropower plants can cause low dissolved oxygen levels in the water, a problem that is harmful to riparian (riverbank) habitats, 3) Humans, flora, and fauna may lose their natural habitat, 4) Local cultures and historical sites may be impinged upon.

In any case, New Hampshire does not need to import foreign electricity for a premium that New Hampshire citizens will pay for, and especially when the New Hampshire Wind Energy Association (WEA) will have wind turbine capacity of 177MW by 2012. This is enough to replace PSNH's Schiller station, which is currently burning wood (i.e. exploitation and depletion of a natural resource). During this decade, WEA estimates >1200MW wind capacity; enough to replace Merrimack and Newington fossil fuel fired plants.

Also, the fact that Hydro Quebec is a state owned utility should be addressed seriously, considering that the province of Quebec is a politically unstable Canadian territory. In the last Canadian federal election, a separatist Bloc Quebecois declared victory in the province. With the strong possibility that the Parti Quebecois will win the next provincial election, chances of Quebec's separation from Canada is in view. Also of concern is how the government of Quebec openly sanctions, and always denies, institutionalized discrimination against Anglophones and other minorities living in the province. For NH to import electricity from Quebec would send a negative message of approval for the perpetuation of abrogated human rights - quite the contrast from New Hampshire's adherence to the tenet that all humans are created equal and have natural and unalienable rights to life, liberty and the pursuit of happiness.

EGU Action 2.7 – Regulated Low- and Non-CO_2-Emitting Supply-Side Resources

Most consumers receive their electricity from the conventional centralized systems of generation and delivery. Unfortunately, we can expect these centralized services to be plagued with unpredictable shortages followed by temporary surpluses, incredible cost overruns, and highly unstable price structures. Future survival of the electric utilities depends on how well they accept and adapt to current trends and conditions of dwindling oil and natural gas supplies and resource instabilities. They will have to take the initial steps to proactively prepare for plausible technological interruptions, and adopt the ideals of voluntary reduction of fossil fuels consumption and self-sufficiency as they transition away from burning fossil fuels towards technologies that recover energy from existing flows of energy, or capture energy from renewable energy sources.

There is a need to accelerate technology development and provide support in public/private collaborative efforts to invest in emerging low-impact generation technologies. However, it is a far better investment to incorporate energy-efficient appliances and equipment into homes and commercial structures than it is to build a bigger electrical generator to supply a load made unnecessarily large by inefficiency. With efficient design, you can have the same level of comfort and convenience with a higher level of reliability, security, and sustainability at a lower cost.

EGU Action 2.8 – Deployment of Smart Technologies and the Establishment of a Smart Grid

Our current grid infrastructure is straining under outdated technology and increasing demand for high-quality power. The current grid, based on technology that was invented more than one hundred years ago, is aging, inefficient, congested, and incapable of meeting the future energy needs of the Information Economy. Although the electric grid has been updated and adapted to the increasing demand, the United States would need to invest close to $500 billion in infrastructure to keep the current grid functioning to meet projected growth during the next 20 years. Because of our reliance on electrical systems, blackouts have a far greater impact than the immediate inconvenience of losing electrical power.

Major goal of the Smart Grid is to reduce outages, which cost U.S. business at least $80 billion per year. Utilities, governments and end-users worldwide recognize the need for implementation of Smart Grid technologies. With the application of intelligent energy technology consisting of sensors and monitoring devices throughout the system, the Smart Grid will optimize the use of generation resources and the delivery of power. With an automated, computer-driven system with two-way communications to provide real-time information, the Smart Grid can control the flow of energy so that supply meets demand. One of the key characteristics of a Smart Grid, through an online interface via the Smart Meter provided by the utility, consumers would be able to view their energy consumption and modify it based on price, which would be higher at times of peak demand. When the system gets close to capacity, the Smart Grid can start a pre-planned program to shed load from non-critical appliances and equipment throughout the grid. This automation can occur for energy usage in large industrial settings and even in residential homes. However, utility executives will need to recognize that residential customers don't like power companies peering into and controlling their homes. For most people this intrusion resembles the all-knowing totalitarian regime that uses constant surveillance of the populace to enforce pervasive and insidious control over citizens.

Momentum is growing in the development and implementation of new technologies to help the energy sector save money, since saving money is an important component of economic strength. With the emergence of numerous smart meter vendors, utilities in many nations have replaced their traditional consumption meters with this latest technology or are in the process of upgrading. Much has been achieved to build Advanced Meter Infrastructures (AMI) to facilitate Automatic Meter Reading (AMR) and shed loads with Intelligent Load Management (ILM) and Demand Response (DR) programs for the macro Smart Grid. While all smart meters provide seamless wired or wireless connectivity to Home Automated Network (HAN) systems, little progress has been made in the HAN micro grid arena. Furthermore, demand side Energy Management and Control Systems (EMCS) exist primarily for institutional, enterprise, industrial and large commercial consumers. The availability of EMCS for small business and residential environments is limited to devices that report usage for the consumer to take action.

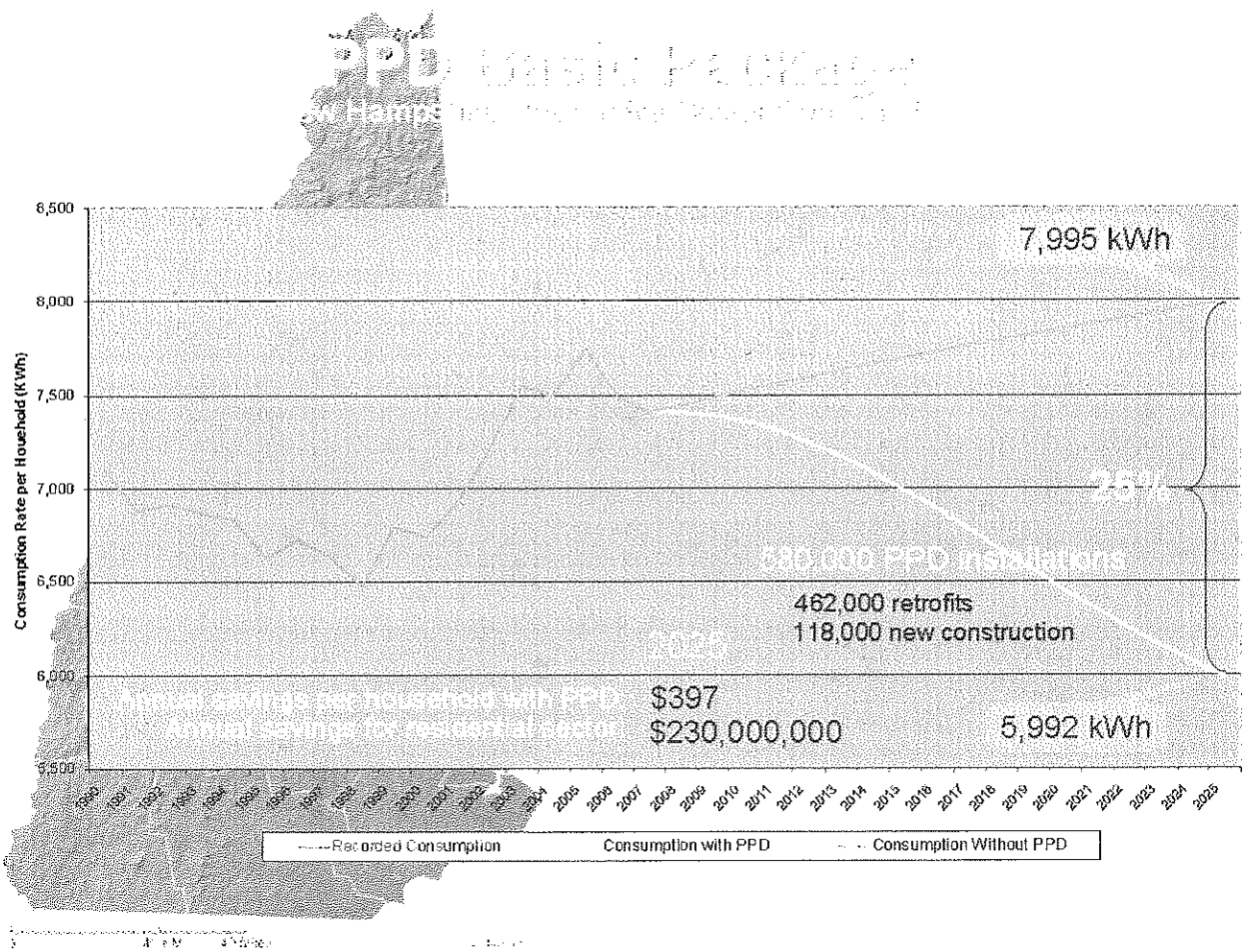
The development of automated EMCS and Intelligent Electronic Devices (IEDs) with sensing and measuring technologies, are the missing essential elements in residential and small commercial micro grid environments for energy accounting, budgeting and faster demand side management (DSM) response. With the possible reality of more frequent electric power rationing to avert brownouts or blackouts (especially during times under emergency conditions), consumers in the residential and small commercial sectors will need EMCS - IEDs to ensure their Maximum Current (MC) draws are not surpassed. Under restrained economic conditions, there is growing need for residential and small commercial EMCS - IEDs systems to account for and budget electricity consumption. These systems will serve to partition consumer billing and curtail electricity consumption abuses. Building owners will consider installing EMCS - IEDs as a value added investment since, with the eventuality of building efficiency certification requirements, EMCS – IEDs installed as a permanent part of a building's infrastructure will become the norm. Municipal, state and federal financial incentives should be made available to building owners who install EMCS - IEDs to enhance energy efficiency on their premises.

Demand Side Technologies, a New Hampshire limited liability company, is currently developing EMCS - IEDs to enhance energy efficiency in homes and businesses. Our mission is to create, demonstrate, deploy and service new sustainable technologies that will integrate economic viability, environmental stewardship and social equity to meet the needs of the present without compromising the ability of future generations to meet their own needs. Our ultimate aim is to promote the efficient use of electricity, reduce emissions of greenhouse gases and the promotion of clean air. We pioneered the concept of a

Priority Power Distribution (PPD) system and Communicating Duplex Receptacle (CDR). We plan to develop communicating receptacles that comply with the National Electrical Manufacturers Association (NEMA) Standards NEMA 5-15R, NEMA 5-20R, NEMA 14-30R and NEMA 14-50R configurations. These communicating receptacles will be available separately or as part of a PPD Basic Package.

A PPD system promotes energy efficiency in buildings. A PPD system interfaces with the CDR at the point where electricity is consumed, supported by supervisory software which, with smart metering providing bi-directional communications, collaborates with utilities' existing, and future, DSM technologies with the means to limit MC draw, shed loads during peak periods in a friendly "non-Orwellian" way and reduce total purchased energy costs. A PPD system with CDRs installed will provide business and homeowners with a tool that locates unnecessary energy losses and identifies energy inefficient appliances that are expensive to run and increase utility bills. With a PPD system an accurate energy distribution profile of the building is generated in real time. Owners become energy aware of the frequency of use and functionality of their appliances and can implement measures to save energy, money and the environment.

A PPD Basic Package will have socio-economic benefits for people in the way it will help to enhance energy efficiency in homes and businesses, limit peak period energy costs, decrease use of our natural resources and reduce GHG emissions intensity. Projecting from known values from 1990 to 2006,



assuming that our estimated value follows logically from these known values, we can expect the residential sector in New Hampshire to increase its electricity consumption in 2025 to 7,995 kWh. By 2025 we estimate 580,000 PPD Basic Packages installed in New Hampshire – 462,000 retrofits and 118,000 new constructions. In 2007, the average New Hampshire residence is estimated to consume 7,408 kWh of electricity. With a PPD Basic Package installed, a household could reduce its consumption

and maintain it at a constant 5,556 kWh (a 25% reduction) for years to come. At current rates of above 13 cents per kWh, a household could save $257 in electrical energy costs in the first year. New Hampshire's residential sector is paying the highest rates for electricity consumption, and these rates are growing at 1.1%. Without adjustments for inflation, average delivered electricity prices are projected to reach 16 cents per kWh in 2025. By 2025 a single household will be saving $397 per year and have accumulated savings of >$6,000 in electrical energy costs over eighteen years. In 2025 New Hampshire's residential energy sector will be saving >$230 million and will have accumulated savings of >$1,802 million over the same eighteen year term.

As soon as you implement energy efficiency EMCS technologies, like our PPD system, on the demand side of consumption, you immediately impact the generation side in positive ways. Without energy efficiency, we expect electricity generation to supply uncontrolled demand will increase to 5.647 TWh by 2025. With our PPD systems reducing New Hampshire's residential sector annual electricity consumption, generation is reduced to 4.232 TWh in 2025 – another 25% drop from the projected level. This translates into a reduced generation capacity of 162 MW in 2025, which represents additional reduction of fossil fuels consumed for electricity generation (22 Short Tons less coal and 777,000 Cubic Feet less natural gas). In 2025 we will save the atmosphere from an additional 54 metric tons of GHG emissions, and save New Hampshire's electric power industry an additional $15,000.

From now to 2025, by burning fewer fossil fuels to generate New Hampshire's electricity for the residential sector, we can reduce our coal consumption by 192 Short Tons and our natural gas consumption by 5,990,000 Cubic Feet. We will have saved the atmosphere from 483 MT of GHG emissions and >$100,000 in fossil fuel costs.

Our PPD - CDR peripheral is sustainable EMCS technology that has reached the demonstration phases of the innovation chain where the development of a bench scale prototype and full-scale demonstration must be completed to prove system capability that will lead to the phases of technologic viability and market relevance. A PPD system seriously addresses the challenges of energy production, conservation and self-sufficiency, and help consumers appreciate electricity as a commodity. Our rationale is based with a clear sense how issues of environmental concerns and global climate change, independence from dwindling supplies of nonrenewable energy sources will set new efficiency policies for the conventional centralized systems of electricity generation and delivery that operate with the intractable environmental drawbacks of coal, oil and nuclear power. State government support for the development of sustainable technologies, like our PPD system, will help turn knowledge and innovation into strategic opportunities, industrial development, market entry and international commercial exploitation that will improve the technology base, create jobs and prosperity in New Hampshire.

EGU Action 2.9 – Promoting Low CO_2-Emitting and Renewable Distributed Generation

There are now infinitely flexible, multioption renewable energy technologies that can aid the transition away from a rigid, highly centralized infrastructure. These technologies provide an environmentally benign, safe and sustainable solution to the problem of electrical generation, in the way they convert renewable energy resources to produce electricity silently, with no depletion of materials or resources, no toxic by-products or waste of any kind, and with little maintenance. Their only drawback is the high initial cost of investment and installation.

Net metering is a low-cost, easily administered method of encouraging demand side investment in renewable energy technologies. Net metering enables consumers to use their own electricity generation to offset their consumption over a billing period by allowing their electric meters to turn backwards when they generate electricity in excess of their demand. This offset means that customers receive retail prices for the excess electricity they generate.

Some utilities are opposed to net metering because they believe it may have a negative financial impact on them. However, a number of studies have shown that net metering can benefit utilities. These benefits include reductions in meter hardware and interconnection costs, as well as in meter reading and billing costs. Grid-connected renewable energy technology systems can also help utilities avoid the cost of additional power generation, increase the reliability and quality of electricity in the grid, and produce power at times of peak usage, when utility generation costs are higher and they often need the extra power.

Net metering is an equitable solution for New Hampshire and respective utilities - a solution that benefits the state as a whole in the way that surpluses of exportable electricity can be generated. Revenues from exported electricity could then be invested to accelerate the agricultural and transportation transition to a renewable energy infrastructure. Governments can use tax incentives and free the extra dollars needed to invest in renewable energy technology systems for our homes and businesses.

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Bill Gabler
Clean Power Development

Ref. EGU Action 2.7 – Allow Regulated Utilities to Build Renewable Generation

This proposed article should be rejected and removed from consideration by the Climate Change Task Force.

RSA 374-F, passed in 1996 states

374-F:1 Purpose. –

I. The most compelling reason to restructure the New Hampshire electric utility industry is to reduce costs for all consumers of electricity by harnessing the power of competitive markets. The overall public policy goal of restructuring is to develop a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment. Increased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that will require unbundling of prices and services and at least functional separation of centralized generation services from transmission and distribution services.

II. A transition to competitive markets for electricity is consistent with the directives of part II, article 83 of the New Hampshire constitution which reads in part: "Free and fair competition in the trades and industries is an inherent and essential right of the people and should be protected against all monopolies and conspiracies which tend to hinder or destroy it." Competitive markets should provide electricity suppliers with incentives to operate efficiently and cleanly, open markets for new and improved technologies, provide electricity buyers and sellers with appropriate price signals, and improve public confidence in the electric utility industry.

The above statement of purpose has just as much meaning and relevance today, as it did 12 years ago.

I'm told that the action item proposed here was brought before the Electric Generation and Use working group, discussed, voted on and rejected for inclusion in the items to be submitted to the full committee. While I was not a party to those actions and am unaware of the reasons brought forth in the debate that ultimately rejected this proposal, let me enumerate the issues against this item as I see them:

- While there is clearly a need for additional renewable generation, it is just as clearly the role of the competitive market to provide it. There are currently858 MW's of renewable power generation proposed to be built in New Hampshire. All if it by competitive suppliers risking their own money, not that of the ratepayers of New Hampshire.

- Just like every other company in the state, PSNH is legally entitled to form an unregulated subsidiary and enter the competitive market to build renewable power plants, using shareholder and free market monies.

- EGU 2.7 cites a critical need for at least one 50MW biomass plant, and up to three more 20-25 MW units. Our company, Clean Power Development, is currently working on developing an array of plants that would provide that biomass power. With a 50 MW facility in Winchester, a 35 MW plant in Merrimack, a 27 MW plant in Berlin and a fourth biomass plant in the works we are working to complete the build-out of the available biomass capacity of the state.

- One of the issues holding us back from completing this build-out of biomass capability is the lack of timely interconnection studies and transmission system improvement. PSNH could actually be a significant asset in the furtherance of renewable power generation by providing sufficient assets to complete the studies and necessary transmission work in support of our efforts.
    - For example, we have plans to bring the 27MW biomass plant in Berlin on line in Dec. 2010, but have been told by PSNH that that date may not be attainable, as they may not be ready for the plant that soon.
    - We filed for an interconnection study of our plant in Merrimack in May, 2007 and are still waiting for that study to be done.

EGU2.7 states that "it is imperative that electrical transmission capability within the state be enhanced and increased to support the development of new low- or non- CO2 emitting generation". In that aspect, we must agree with PSNH and fully support their efforts to do so as expeditiously as possible so that generators may move ahead with their plans to make New Hampshire the green energy capitol of New England.

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Representative Frederick W. King
Coos District One
Box 146
Colebrook, NH 03576

I am making comments to the Climate Change Policy Task Force as an elected Representative of Coos County who has spent a considerable amount of time working on the development of renewable green power proposals for the north county. When Governor Lynch issued his goal of having 25% of the State's electrical power needs met with pollution free power by 2025 the elected Representatives in my County voted in April of 2007 to support this ambitious goal. Since then we have voted to support the first wind power project now before the Site Evaluation Committee for their consideration. This is a 99MW proposal and is the first of what we expect will lead to a total of 270 total MW of wind power projects and additional biomass projects that may total 70 MW. We believe we now as we did in 2007 that we can produce in Coos County the majority of green power expressed in the Governor's recommendation and do this before 2025 if we are allowed to do so.

I am also a member of the Senate Bill 383 committee that was created to develop a plan for the expansion of transmission capacity in the North Country. We have met several times and will meet again in November to finalize our recommendations. It appears that there is some overlap between the SB - 383 committee and your task force.

Now for my thoughts on your Draft Revisions of October 20, 2008.

EGU Action 2.6:

I would only say if we are allowed to develop in New Hampshire wind projects with the appropriate transmission line up grades we may not need power from Canada. Let us spend our rate users funds on home grown power that will greatly enhance our local economies and will also add to our property tax base. Lets do this first and then look to future use of Canada's expanded power generation if we if we need additional power. Lets take care of our job seekers before looking across the border.

EGU Action 2.7:

I was in the State Senate when SB 472 became law in 2000. This was in answer to the PSNH bail out. The state policy established then was to have this company be a pole and wire company going forward. In fact the bill stated that by July 1, 2001 that the sale of PSNH fossil generation assets would take place unless the commission found otherwise. RSA 369-B:3a effective April 23, 2003 now states that the PSNH assets were not to be sold before April 30, 2006 but implies that they should still be sold. In fact recent attempts to allow the company to construct new generation has been denied by the Legislature. In my opinion it is long past time to allow for competition in the generation of electrical energy. We should allow for such competition to go forward and until there has been a fair chance for this to happen PSNH should maintain their current plants but should not be allowed at this time to construct any new facilities.

5. Complementary Policies

7. I believe that in 2009 the Legislature should do nothing to stall the projects now in development that if successful could meet the identified list of projects in a, b and c which is possible before the dates shown.

EGU Action 2.8:

I support the stated goals but confess I know little about how this might occur.

EGU Action 2.9:

I agree.

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Project Laundry List

Alexander P. Lee
Executive Director
(603) 226-3098 (phone & fax)
(603) 219-3586 (cellular)

Chris,

Good to speak with you. I am responding to the attached notice. Right from that reliable source called Wikipedia:

> Methane in the Earth's atmosphere is an important greenhouse gas with a global warming potential of 25 over a 100-year period. This means that a methane emission will have 25 times the impact on temperature of a carbon dioxide emission of the same mass over the following 100 years. **Methane has a large effect for a brief period (a net lifetime of 8.4 years in the atmosphere), whereas carbon dioxide has a small effect for a long period (over 100 years). Because of this difference in effect and time period, the global warming potential of methane over a 20 year time period is 72.** (FN13: See http://www.grida.no/publications/other/ipcc_tar/?src=/climate/ipcc_tar/wg1/017.htm)

A more fun but alarming description of the larger methane problem is available at http://openthefuture.com/2008/09/methane_its_not_just_from_your.html. The bright side of this "discovery" is that scientists might now invest sufficient resources to study the methane problem more carefully than they would have if reservoirs were the only thing off-gassing.

We need to think about this with regard to methane from any source, but particularly from dams, because their biggest contribution of methane comes immediately after submerging vegetation beneath a reservoir (i.e. during a twenty year period after construction and first use). If we have a 80% by 2050 goal for CO2e (which should actually be 100% by 2050 for the US, as addressed in Arjun Makhijani's Nuclear Free & Carbon Free, p. 190), then short-term reduction in CH_4 (methane) are just as meaningful/important as long-term reductions in CO2.

See http://www.ens-newswire.com/ens/may2007/2007-05-09-04.asp. I will be reaching out to a colleague from NH, who does extensive work in South America, to communicate with the Brazilian author of the report. If Ivan can be of help, I will strive to have him submit some comments by the deadline…in English, not Portuguese!

You asked specifically about the effects of dams in Northern boreal climes, as opposed to the Amazonian or tropical region. Not a lot of data exists. Perhaps the more important statement is this one from the IPCC:

> Although the major contributors to the global CH_4 budget likely have been identified, most of them are quite uncertain quantitatively because of the difficulty in assessing emission rates of highly variable biospheric sources. The limitations of poorly quantified and characterized CH_4 source strengths inhibit the prediction of future CH_4 atmospheric concentrations (and hence its contribution to radiative forcing) for any given anthropogenic emission scenario, particularly since both natural emissions and the removal of CH_4 can be influenced substantially by climate change. (See http://www.grida.no/publications/other/ipcc_tar/?src=/climate/ipcc_tar/wg1/017.htm)

The precautionary principle and the high uncertainty alone should militate against "playing with fire" (or water, if you will). Furthermore, NASA geophysicist Dr. Benjamin Fong Chao has found evidence that the weight of the world's collective reservoirs is speeding up the Earth's rate of spin and is changing the shape of Earth's magnetic field. (Source: "Dams alter Earth's orbit, scientist says" in Ottawa Citizen, March 3/1996, pg. D8 (based on) Malcolm W. Browne's late Feb./early March '96 report in the New York Times.) There is also a growing body of evidence that large dams contribute to increased seismic activity. Three Gorges in China, Katse Dam, Hoover Dam being a few examples cited. While these last couple are among the more

controversial assertions in this memo, according to the World Commission on Dams report, where the reservoir is large compared to the generating capacity (less than 100 watts per square metre of surface area) and no clearing of the forests in the area was undertaken prior to impoundment of the reservoir, greenhouse gas emissions from the reservoir may be higher than those of a conventional oil-fired thermal generation plant. (See this excellent article http://www.newscientist.com/article.ns?id=dn7046.)

The EGU 2.6 states:

> Environmental: Importation of renewable energy can reduce emissions of carbon dioxide and other greenhouse gases and primary air pollutants that contribute to climate change and damage our ecosystems. Emission reductions will directly improve air and water quality while indirectly benefitting the fish, wildlife, and ecosystems that depend on clean air and water. Additional environmental benefits would be gained by avoiding the construction of supply-side resources in the New Hampshire.

The first sentence is broadly applicable to almost any renewable or sustainable energy import. It is not an empirical statement that, "Importation of renewable energy ~~can~~ do reduce emissions of carbon dioxide and other greenhouse gases." There are "renewable" resources that are not sustainable and renewability does not have anything to do with the inherent or endogenous carbon intensity of an energy source. It would be more accurate to say that importation of hydropower reduces air pollutants associated with many typical non-renewable energy sources. The NIMBY nature of the last sentence in the quoted paragraph above is irresponsible, as the costs will now be born by populations out of region but inhabiting the same planet and it is not at all clear that out of region power with its built-in transport costs, creates a net environmental gain. This is a values statement, at best, that seems to disregard the rights-of-way and other infringements upon our freedoms that bringing power from Canada will necessarily entail.

How did somebody arrive at the 6.09 $MMTCO_2e$ figure? What is the mechanism for a member of the public (with or without a Ph.D.) to contest this expert assertion or dissect the model employed to reach it?

EGU 2.6 also states, "This measure provides short term value in the form of wages." Wages for Cree and Quebecois? No, you mean wages for American utility personnel installing high-voltage transport systems, right? This is an overly-politicized sentence that is more reflective of North Country woes and a flagging employment rate than sustainable economic policy. It should at least be changed to read, "This measure provides short term value in the form of wages for a number of limited time jobs along the transmission corridor."

My other big concerns with Hydro-Quebec's hydro-power are environmental and geo-political, but do not relate to climate change *per se*.

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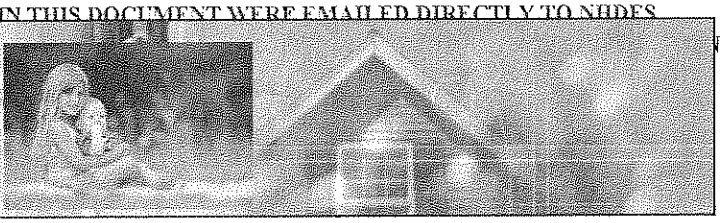
REACH

RESIDENTS ENVIRONMENTAL ACTION COMMITTEE FOR HEALTH

P.O. Box 385, Contoocook, N.H. 03229

REACH for Health and Safety



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November 3, 2008

Air Resources Division
NH Department of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

Dear Mr. Skoglund:

This will please serve as public comment on the Climate Change Policy Taskforce's proposed NH Climate Change Action Plan from Resident's Environmental Action Committee for Health, Inc. ("REACH"), a community-based, grass roots organization working toward the promotion of a cleaner and healthier New Hampshire.

REACH applauds the current effort to explore and promote the importation of Canadian "clean"power such as hydro and wind, the development of certain renewable generation projects, the deployment of next generation electric grid technologies, and the promotion of distributed generation. However, the Taskforce must never allow its goals and recommendations, designed to ensure a cleaner, healthier and more economically vibrant state, inadvertently serve as a Trojan Horse for those interests and industries antithetical to the Taskforce's mission and the clear mandate of the Legislative and Executive Branches.

Specifically, REACH strongly urges the Taskforce not to allow any language in the group's report which could be interpreted as endorsing the incineration or processing of the wood component of construction and demolition debris (as defined in RSA 149-M:4, IV-a), or any mixture or derivation from said component, as part of the Taskforce's recommendations regarding alternative energy sources. We are aware that the waste industry and its allies are actively working to dilute or overturn the current ban on the incineration of such dangerous materials. It would be indeed ironic if these interests were able to influence the Taskforce's current efforts in a manner inconsistent with the environmental and health protections under current New Hampshire law. In the process of encouraging alternative, cleaner and more efficient energy sources, we must never inadvertently take steps backward with regard to the current hard-fought protections afforded our environment and the health of our communities.

Please let us know if we can be of additional assistance or if you require further information regarding this or any other related matter. Thank you as always for your consideration and for working toward a cleaner and healthier New Hampshire.

Very Truly Yours,

_____
Ronald J. Lajoie, Esq.
President of REACH

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Real Green Goods
35 South Main St.
Concord, NH 03301
1-603-224-9700
1-877-744-9744
www.realgreengoods.com

Great and thanks for sending me this. I assume that considering tidal flow electricity in Great Bay is under number 3 below.

Also, is there discussion about an idle for vehicles restriction for the State- your 30 second rule etc.

Thanks for listening.
Debby

--
Have a green day!

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E. H. Roy
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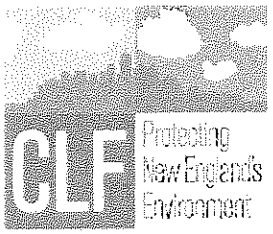
Two comments on the PV strategy (Action 2.9).

1) Consider changing the existing incentive program to provide larger incentives to folks who purchase PV systems that incorporate equipment components manufactured in NH - this will encourage such industries to move to NH.

2). Consider production-based incentives (x amount for each kilowatt hour produced by the system) rather than lump sum incentives or in concert with lump-sum incentives. This approach encourages PV system owners to ensure that their systems are working properly at all times.

I think having an education program is a great idea - as a PV instructor, I am amazed at how little many people know about selecting and operating PV systems. A lot of people don't realize PV systems work in our climate! Let me know if I can help.

Best,
E. H.



CONSERVATION LAW FOUNDATION

Via E-mail

November 7, 2008

Chris Skoglund
Energy and Transportation Analyst
New Hampshire Department of Environmental Services
29 Hazen Drive
Concord, New Hampshire 03302-0095

Re: New Hampshire Climate Change Policy Task Force
Energy Generation and Use Sector—New Actions under Consideration

Dear Mr. Skoglund:

Conservation Law Foundation (CLF) appreciates the opportunity to offer these comments regarding the additional potential Electric Generation and Use Actions, and commends the New Hampshire Climate Change Policy Task Force (Task Force) and the Electric Generation and Usage (EGU) Working Group, in particular, for its efforts in this important matter.

The four proposed new actions—EGU Action 2.6 – Importation of Canadian Hydro and Wind Generation; EGU Action 2.7 – Allow Regulated Utilities to Build Renewable Generation; EGU Action 2.8 – Identify and Deploy the Next Generation of Electric Grid Technologies; and, EGU Action 2.9 – Promote Low- and Non-CO_2-Emitting Distributed Generation—reflect the EGU Working Group's expansive consideration of options to help reduce greenhouse gas emissions.

EGU Action 2.7 – Allow Regulated Utilities to Build Renewable Generation. CLF strongly supports this proposed Action. The EGU Working Group has documented the need for increased renewable energy generation and correctly notes the significant resources and experience that Public Service of New Hampshire (PSNH) could provide in the development of such generation. Authorizing PSNH to construct and / or acquire, as well as operate and own, renewable generation assets, however, raises legitimate concerns about the potential for PSNH, as a transmission and distribution owner and operator, to give preference to its own generation over that of other renewable generators. This concern potentially could be addressed by limiting the size or type of renewable generation that a regulated utility can own.

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To ensure that this proposed action is pursued in a manner that maintains a competitive playing-field for other renewable developers in the state, CLF urges the Task Force and Working Group to recommend that Action 2.7 specifically note the need to structure any such regulatory change to take into account and appropriately address this concern.

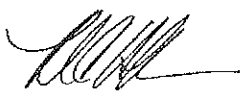
EGU Action 2.6 – Importation of Canadian Hydro and Wind Generation. The Task Force must ensure an open and transparent assessment is conducted to evaluate properly the full-range of potential environmental and social impacts associated with this proposed Action, including increased mercury pollution from rotting vegetation due to flooding; carbon dioxide pollution from damming; and displacement of indigenous peoples.[1] Such an evaluation is particularly important here where such impacts have not yet been fully explored.[2]

CLF agrees that an increase in affordable clean power generation should be strongly encouraged, including appropriately evaluated Canadian wind and hydro power. EGU Action 2.6 appears designed to support such generation only in the event that it does not result in *any* rate increase. CLF urges the Task Force to support such generation so long as it does not involve an *unreasonable* rate increase.

CLF also notes the desirability of linking EGU Actions 2.6 and 2.7 to a commitment to reduce New Hampshire's reliance on non-renewable generation. CLF urges the Task Force to consider conditioning implementation of these Actions on reductions in carbon dioxide emissions from existing sources in New Hampshire.

Again, CLF reiterates its support for and appreciation of the Task Force's work on this matter and looks forward to working collaboratively to achieve the Task Force's climate change goals.

Sincerely,



Melissa A. Hoffer
Director and Vice President
New Hampshire Advocacy Center

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[1] *See* Allan R. Gold, "Quebec Indians Ponder True Cost of Electricity," The New York Times, Oct. 31, 2008.

[2] *See, e.g.*, Description of micrometerological research undertaken by McGill University's Atmospheric and Environmental Research laboratory and HydroQuebec regarding greenhouse gas emissions from hydroelectric reservoirs, available at http://nrs-staff.mcgill.ca/strachan/research.html.

NEPGA
NEW ENGLAND POWER
GENERATORS ASSOCIATION, INC.

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November 3, 2008

Mr. Christopher Skoglund
Energy and Transportation Analyst
New Hampshire Department of Environmental Services
29 Hazen Drive PO Box 95
Concord, NH 03302-0095

Re: New Hampshire Climate Change Policy Task Force Draft Action Reports under Development

Dear Mr. Skoglund:

Pursuant to the request for comments by the Climate Change Policy Task Force ("Task Force"), the New England Power Generators Association, Inc. ("NEPGA") hereby respectfully files these comments.[1] NEPGA represents sixteen companies and approximately 25,000 megawatts (or over 80 percent) of the generation in New England, and approximately 2,310 megawatts of generating capacity in New Hampshire alone. NEPGA's mission is to promote sound energy policies which will further economic development, jobs, and balanced environmental policy. NEPGA requests that all further correspondence, communications and other documents relating to this matter be served upon the following:

Christopher P. Sherman, General Counsel
New England Power Generators Association
141 Tremont Street
Boston, MA 02111
(617) 902-2354
csherman@nepga.org

I. BACKGROUND

Signed in December 2007 by Governor Lynch, Executive Order Number 2007-3 appointed the Task Force with the purpose of developing an action plan to address climate

[1] The views expressed in these comments do not necessarily represent the positions of each of NEPGA's members. In addition, nothing in these comments should be deemed to waive any rights that NEPGA or any of its members may have to challenge the administrative, procedural or substantive validity of any proposed regulations.

change and energy efficiency in a manner which strengthens the New Hampshire economy and ensures a reliable and viable energy future. In order to develop a feasible plan, the Task Force has released a number of draft reports that are open to public comment before the final Action Plan is delivered to the Governor in December 2008.

II. COMMENTS OF NEPGA

NEPGA supports the efforts of the Task Force to ensure that the consumers of New Hampshire benefit most appropriately from the electricity market and appreciates the opportunity to be a part of this important process.

A. EGU Action 1.3: *Combined Heat and Power Resources Standard*

To promote Combined Heat and Power ("CHP") in New Hampshire, the Draft Action Report recommends the addition of a Combined Heat & Power Resource Standard (CHPRS) to provide emissions reductions and energy price reduction benefits.[2] Similar to a Renewable Portfolio Standard for renewable power, certificates could be awarded to both renewable and non-renewable CHP project developers/owners; and electric utilities could be mandated to meet a percentage of their portfolio by buying CHP certificates. NEPGA supports the increased use of CHP through the proper implementation of a CHPRS. The United States had approximately 85 gigawatts (GW) of CHP capacity in place as of 2007, yet the potential for substantial expansion is great. In 2000, the U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA) set a goal to double the capacity of U.S. CHP installations by 2010.[3] Other states in New England are also researching the increase use of CHP to further state and regional goals of increased energy efficiency and environmentalism.[4]

CHP captures waste heat that is ordinarily discarded from conventional power generation; typically, two-thirds of the input energy is discarded to the environment as waste heat (up exhaust stacks and through cooling towers). This captured energy can be used to provide process heat, space cooling or heating for commercial buildings or industrial facilities, and cooling or heating for district energy systems. By providing electrical and thermal energy from a common fuel input, CHP significantly reduces the associated fuel use and emissions. Due to its higher efficiency compared to conventional central-station generating systems, CHP produces lower emissions of traditional air pollutants and carbon dioxide, the leading greenhouse gas associated with global climate change, than conventional generating systems.

NEPGA maintains that the Task Force should not proscribe arbitrarily low emissions rates that are contrary to state and national energy policy so as not to ultimately thwart the

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[2] Revised EGU Action Reports, Page 11.

[3] US DOE, Energy Information Association

[4] As a part of the Green Communities Act, signed into law by Massachusetts Governor Patrick on July 2, 2008, the legislature has altered the existing RPS to establish three separate standards including an alternative energy portfolio standard that includes CHP.

reduction in emissions. Instead emissions should be considered on a case-by-case basis through the implementation of a resource emissions optimization plan that is specific to each CHP energy resource and is administered by the New Hampshire Department of Environmental Protection. The Action Report should specify that an emission optimization plan must be approved or denied by the DEP within 60-days of submittal of an administratively complete draft plan by a resource seeking to qualify under the CHPRS.

NEPGA proposes an additional methodology that enables an energy resource to adjust the emission limitation for a CHP system and take into account emissions that will not be created by omitting a conventional separate system (e.g. boiler) to generate the same thermal output. NEPGA expects that the proposed methodology will have a positive impact upon air quality, mainly in the form of reductions in greenhouse gas emissions as less fuel is consumed to produce the same electrical and thermal energy outputs in a CHP system as compared to separate systems.

Draft ECU Action 1.3 §7 makes reference to NEPOOL's generator information system to implement the system. NEPGA approves this proposal, as the GIS currently tracks generation and even classifies renewable energy certificates for state renewable portfolio standard implementation according to their eligibility to meet different state RPS requirements. The specificity with which the existing GIS system tracks resources is sufficient to ensure that retail suppliers and CHPRS eligible resources are complying with the CHPRS

The CHPRS should be consumer conscious. As such, prudent economic and energy policy dictates that the Task Force recognizes that the revenue from the CHPRS is ultimately paid by the electric consumer. CHPRS revenues are only one of the cost adders that currently burden the consumer cost of electricity and, as such, should be limited. Accordingly, NEPGA recommends establishing a proper CHPRS by utilizing a more comprehensive stakeholder process consisting of balanced representation between supply-side and consumer-side interests to identify the issues relating to all parties. The stakeholder process should be narrowly focused and limited to the development of a CHPRS that adequately incents development of resources in satisfaction of the goals of the program.

B. EGU Action 2.1 - *Renewable Portfolio Standard*

NEPGA favors the prudent implementation of the renewable portfolio standard ("RPS") in New Hampshire. RPS requirements produce a number of benefits, such as reducing emissions of air pollutants and greenhouse gases, increasing diversity and security of energy supply, and reducing price volatility in energy markets. RPS requirements also promote economic development and create new jobs related to manufacturing, installing, and servicing RPS-eligible equipment and facilities within the competitive electricity markets. However, in order to continue to incent private investment in new renewable energy infrastructure technology to accelerate the benefits that improve the environment, New Hampshire must maintain a business climate that allows for sound and prudent investments through a consistent regulatory environment. Accordingly, the RPS should contain consistent criteria for qualifying resources in order to maintain a reliable and predictable revenue stream upon which to procure project financing, as well as to ensure the continued economic well-being of resources developed under

the original RPS. Energy projects are planned years in advance and involve a substantial financial commitment on the part of developers and financiers. With so much at stake, investors need to be confident that governments aren't going to change the rules in the middle of the development process.

However, sensible economic and energy policy dictates that New Hampshire should recognize that the revenue from the RPS is used to subsidize resources that could not otherwise survive on market revenues and are ultimately paid by the electric consumer. RPS revenues are only one of the cost adders that currently burden the consumer cost of electricity and, as such, should be limited.

C. EGU Action 2.1 - *Regional Greenhouse Gas Initiative*

NEPGA supports properly implemented national measures to stabilize and then reduce anthropogenic emissions of CO_2. However, in the absence of a federal program, this regional effort must be implemented in an economically efficient manner that does not compromise the integrity of the competitive energy markets or the economy in New England. The restructuring of the New England market has been the product of many years of detailed negotiations and discussions among a wide range of market participants: utilities, regulators, customers, generators and other stakeholder groups. Among the benefits of the competitive market system has been substantial new investment in efficient generating plants, much of it in New Hampshire. These units are cleaner and more efficient, so emissions of key pollutants have gone down even as electricity consumption throughout the region has increased. Despite the increase in generating capacity, New England facilities have reduced the emissions of NO_X by 32%, SO_2 by 48% and CO_2 by 6%.[5]

Generators want to continue to provide New Hampshire with the benefits that consumers have experienced and come to expect over the past several years. NEPGA is confident that this can be accomplished by incentivizing private investment in new technology to accelerate those benefits to improve the environment, while maintaining adequate electrical supply. However, the challenge of maintaining adequate electrical supply is constantly being burdened by regional demand increases, capacity shortfalls and the potential for loss of existing installed capacity. Simultaneously, the industry struggles with the ability to develop new generating infrastructure and to maintain existing capacity because of the complexities of permitting and stakeholder and political obstructions.

The outcome that should be of greatest concern to New Hampshire policy makers in implementing RGGI is the affect that high electricity costs have in making business less willing to invest in new capital within the state or cause some existing capital to become economically obsolete. Energy has an influence that is disproportionate to its share of the state's real gross domestic product largely because of consumers' limited ability to adjust the amount of energy they use per unit of output over a short period of time.[6] Currently, the Milkin Institutes cost of

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5 ISO-NE – Regional Electricity Outlook, 2007 Annual Report

6 Comments of Federal Reserve System Chairman Ben S. Bernanke before the Economic Club of Chicago on June 15, 2006.

doing business index ranks New Hampshire as the 12th most expensive place to do business in the nation based upon the fact that the average industrial electricity bill is the 5th highest in the nation.

Of particular importance to sustaining New Hampshire's economic competitiveness is maintaining consistent criteria for each CO_2 reduction program and the participants' ability to trade allowances within the parameters of those programs. The regional and global efforts being undertaken by numerous jurisdictions will inevitably affect the price and availability of allowances for the individual program participants, and have an undetermined corresponding affect on electric reliability in those areas.

Ideally, NEPGA believes that the most effective way to address carbon emission reductions is to develop a national, economy-wide program. Accordingly, there ought to be a sunset provision in the New Hampshire rule that allows for its elimination and replacement with another rule should a federal program be implemented in the future. A single state or even regional program, by virtue of the small percentage of global emissions from the limited geographic size, cannot make significant impacts to the overall goal of reducing the amount of global greenhouse gases.[7]

D. EGU Action 2.3 – *New Source Performance Standards* and EGU Action 2.4 - *Low and Non CO_2 Emitting Supply side Resources*

NEPGA reiterates the need to maintain an affordable and reliable electrical supply. NEPGA members are still negotiating the complexities of recently enacted environmental compliance programs and have yet to determine what the ultimate impact to cost and reliability will be. NEPGA strongly recommends that New Hampshire work within the recently enacted RGGI program to gauge its effects and success before we embark upon more aggressive measures, as suggested by Actions 2.3 and 2.4.

E. EGU Action 2.5 – *Nuclear Power Capacity*

NEPGA's policies are fuel neutral and, as such, our organization does not favor one technology over another. As such, NEPGA encourages the Task Force to openly and fully investigate the benefits of all energy resources to meet the state's growing energy needs, including nuclear energy. Concerns about rising electricity demand and clean air are among some of the factors driving the region's interest in new nuclear plants. Nuclear energy is an electricity source that can generate electricity safely, reliably, efficiently and with no greenhouse-gas emissions

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[7] Of particular note is that greenhouse gases from New Hampshire's electric generators are equal to less than 1% of national emissions.

F. EGU Action 2.6 – *Importation of non-CO_2 emitting power into New Hampshire from outside the State.*

NEPGA recognizes that an effective climate action plan both anticipates and needs external resources to be successfully implemented. The markets for renewable energy have historically been motivated by regionally policy efforts and it is important to remain consistent in the ongoing implementation of the RPS to ensure its success. The fundamental purpose of the renewable portfolio standards has been to increase the amount of renewable energy supply into the region so as to promote regional environmental goals. While the various state RPS have not been administered in any comprehensive manner, the various state programs have been remarkably consistent in the goal of removing market barriers to the generation and transmission of renewable energy so as to increase the ability of compliance. A successful RPS requires a coordinated regional effort that is implemented in an economically efficient manner so as not to compromise the integrity of the competitive energy markets or the economy in New England.

However, developments in transmission infrastructure will indisputably impact the consumer price of electricity, as well as the decisions of private developers to invest in supply side resources. NEPGA members have made substantial investments in new, efficient generating plants throughout the region and continually evaluate further opportunities to expand their presence within the state. Accordingly, NEPGA has a direct interest in ensuring that the decisions to expand transmission infrastructure are made in a prudent manner that best represents broad stakeholder interests. In furtherance of those interests, NEPGA is an active member of New Hampshire's 383 Commission to develop a plan for the expansion of transmission capacity in a manner that best meets the economic interest of the region.

The New England bulk power system is comprised of more than 8,000 miles of high voltage transmission lines and several hundred generating facilities, of which more than 300 units are under the direct control of ISO-NE. NEPGA's members work cohesively to assure the bulk power supply system within the New England control area conforms to proper standards of reliability through their participation in the open-access trading platform that produces the lowest-cost solution to meeting the demands for reliable electricity. New England's markets are based on day ahead and real-time energy markets, with least-cost, security-constrained dispatch of the system which efficiently values the marginal increment of production or decrement of consumption in response to constantly varying real-time demand. NEPGA's members have been actively involved in the development of these market systems and have concerns about such a broad policy that favors transmission solutions without a more detailed policy for least-cost analysis and prudency review.

NEPGA believes that, as in all cases, a transparent stakeholder process should be utilized prior to the approval or construction of new transmission facilities. Because the cost of new transmission is incurred by the ratepayer, a stakeholder process is invaluable to determine what least cost resources are best suited to achieve electric reliability and affordability. NEPGA supports the stakeholder process and believes that it is a proven mechanism for creating prudent electricity policy.

G. TLU Action 2.7 - *Regulated electric Low and Non CO_2 Emitting Supply side Resources.*

NEPGA is strongly opposed to utility participation in the energy supply business as such a reversal of policy will have a detrimental effect on electricity consumers, merchant generators of electricity and on competitive electricity providers. From a practical perspective, a competitive wholesale market for power in New England has delivered benefits to customers and the region that would have been impossible under the regulated structure that had been in place for many years. This success has been the product of substantial new investment in efficient generating plants. Within ISO-NE there are market mechanisms that currently exist and that are being developed and implemented to meet the local reliability and sustainability needs of the region through competitive market signals, and NEPGA supports that process as the most appropriate mechanism to obtain desired low and non-CO_2 emitting generation capacity in New Hampshire.

Prior to the restructuring of the market, electricity consumers were vulnerable to a persistent market situation where there was only one provider of electricity, as opposed to a vibrant electricity market where participants' survival was based upon superior innovation and efficiencies. The lack of economic competition for electricity led to unavoidable cost overruns and stranded costs by utilities that experienced no competitive market pressures. The provisions in draft TLU Action 2.7 that advance utility owned generation by developing renewable energy resources outside of the private sector will ultimately cost ratepayers more money.

Vertically integrated utility companies are entitled to recover their costs plus a return on those investments from ratepayers. Merchant energy companies, on the other hand, have no such guaranteed cost recovery. Rather, they are forced to cover their costs from the markets and must answer to their shareholders when their performance is subpar. As a result of increased construction costs, utility plant capital costs have risen dramatically in integrated utility markets.[8] In May 2005, Duke Energy Carolinas[9] requested approval from the North Carolina Utilities Commission (NCUC) to construct two 800 megawatt coal-fired units at Duke's existing Cliffside plant for a total cost of two billion dollars ($2,000,000,000). In March 2007, Duke Energy calculated the latest cost for the single unit would be $1.8 billion, an 80% increase from the original estimate from only six-months earlier.

Similarly, on August 22, 2008, the New Hampshire Public Utility Commission opened an investigation following a quarterly earnings report filed by Northeast Utilities with the Securities and Exchange Commission that disclosed that the estimated cost of installing a wet flue gas desulphurization system, also referred to as scrubber technology, at Public Service Company of New Hampshire's ("PSNH") Merrimack Station, had increased by approximately 80% over the original estimate. According to the quarterly earnings report the installation cost had increased

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[8] *See*, Electric Power Supply Association, PowerFact, July 25, 2007.

[9] Duke Energy owns and operates vertically integrated utilities in North Carolina and South Carolina serving approximately 2.3 million customers with a generating capability of approximately 19,900 megawatts. http://www.duke-energy.com/about-us/power-plants.asp

from an original estimate of $250 million to $457 million. Moreover, on August 25, 2008, PSNH filed a motion seeking to accelerate the permitting schedule "to mitigate the harm that will be caused by delays in the scrubber project." An acceleration of the schedule merely denies other stakeholders the opportunity to propose more cost-effective methodologies for achieving the same results, ultimately adding costs to an already overburdened rate base.

These examples are clear signs of larger systemic flaws in the vertically integrated methodologies for procuring energy infrastructure. The consumers of New Hampshire deserve a more straightforward and transparent approach to resource development. For the foregoing reasons, NEPGA opposes the reentry of electric utilities into the energy supply business, and specifically opposes Action 2.7.

Notwithstanding the foregoing, NEPGA is supportive of New Hampshire's objective to increase the amount of renewable generation to achieve its environmental and sustainability goals. NEPGA supports these initiatives, provided that such initiatives are not advanced at the expense of electric consumers or the competitive wholesale electricity market. In furtherance thereof, NEPGA is willing to work through the Task Force process to achieve these goals, provided that any such resulting proposal contains the following guidelines for generation development and ownership:

- All of the risk of the generation projects procured by any proposed legislation, including liability for project cost and scheduled completion and delivery obligation dates, must stay with the project proponent to maximize protections for New Hampshire consumers and remain consistent with competitive market fundamentals.

- The process for building renewable generation must maintain a strict consistency with competitive market rules.

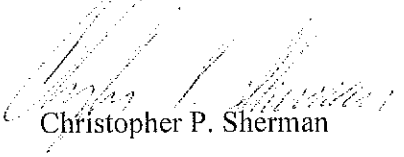
- The amount of megawatts of renewable generation that is procured must be left to the market to decide, based on information provided by ISO-NE in its analyses of the power system, and on the value of such resources presented in the markets.

NEPGA maintains fuel neutrality in its membership and policy initiatives, as our members represent a highly diverse portfolio of generation. We feel uniquely qualified to assist in the development of market policies that promote new renewable and sustainable generation infrastructure in New Hampshire. We are anxious to see New Hampshire achieve its goals and to be a part of that accomplishment.

III. CONCLUSION

NEPGA respectfully requests that the Climate Change Policy Task Force consider the comments contained herein. If you have any questions please don't hesitate to contact me.

Sincerely,



Christopher P. Sherman

3 November 2008

Mr. Thomas Burak
Chairman, Climate Change Policy Task Force
New Hampshire Department of Environmental Services
29 Hazen Dr., Box 95
Concord, NH 03302-0095

Dear Mr. Burak:

The Climate Change Policy Task Force (CCPTF) has entertained many good suggestions to reduce the state's carbon dioxide footprint.

In EGU Action Item 2.4, the CCPTF posits that "society needs to move away from carbon-based supply resources" and opt instead for "low or non-CO2 emitting" electrical generating facilities-namely "hydro, solar, photovoltaic, wind, geothermal, tidal and biomass."

In 2006, the General Court passed, and Governor Lynch signed, legislation (HB 1673) requiring PSNH to install scrubbers at its Merrimack coal plant. Two years later, PSNH is asking electricity consumers to spend $457 million to install the scrubber system at the Merrimack plant. According to PSNH, the scrubbers would reduce mercury emissions by 80%. Carbon dioxide emissions would be reduced by 0%.

On Friday, October 31, PSNH announced it is requesting a 9.8% rate hike, blaming part of the rate increase on $15.4 million dollars that PSNH will have to pay for carbon offsets mandated by RGGI.

Throughout the course of its deliberations, the CCPTF has ignored the single largest source of CO2 emissions, the state's coal-fired electricity generating plants, principally the 430 MW Merrimack station. Each year, this tired 40-year old plant spews nearly 4 million tons of CO2 into the atmosphere in southern New Hampshire.

New Hampshire has an opportunity to eliminate coal from NH's electricity generation mix forever and replace it with electricity generated by in-state renewable, green energies, such as wind, biomass, tidal, geothermal and hydro.

The question is rightly posed: if Merrimack were to be closed, where will the power come from?

There are now clean energy alternatives to the continued operation of Merrimack which were not available just two years and one half years ago. By the end of this year, New Hampshire's first modern wind farm project – a 12 wind turbine, 24 MW project in Lempster -- will begin operating and avoid nearly 40,000 tons of CO2 and generate nearly 70,000 MWh every year. A 33 wind turbine, 99 MW wind project in Millsfield, Coos County, will generate more than 300,000 MWh while avoiding nearly 170,000 tons of carbon dioxide annually. This project could be built by the end of 2010 and start generating clean, renewable electricity in 2011.

And these two wind energy projects are just the beginning of a "Zero Carbon" future for electricity generation in New Hampshire.

Currently under development is 257 MW of wind power slated to be online by the end of 2012. These projects will avoid 434,000 tons of CO2. Another 510 MW of wind energy projects (865,000 tons of CO2) is expected to be online by the end of 2016, pending transmission upgrades of the Coos County loop. When completed, wind energy projects in New Hampshire could avoid nearly 1.3 million tons of CO2.

Since HB 1673 was passed in 2006, ten renewable energy (1 hydro, 4 wind, 5 biomass) projects totaling 800 MW have been added to the ISO-NE queue for completion before 2012. Combined, these projects will generate more than 3.7 million MWh and avoid the emission of more than two million tons of CO2.

In its 2007 analysis supporting the Renewable Portfolio Standard, the University of New Hampshire estimates that 960 MW of wind potential is available in New Hampshire. The New Hampshire Wind Energy Association estimates that the commercial potential for bulk wind-generated electricity exceeds 1200 MW. So, the range for wind energy potential is 960-1200 MW, or approximately 320-400 utility grade wind turbines, similar to those now being erected in Lempster.

But who is going to develop New Hampshire's plentiful wind energy resource and meet the region's anticipated increased electricity needs?

Public Service of New Hampshire wants to import Canadian power soon and then add renewable energy to its generation portfolio at its convenience afterwards.

For its contribution to the reduction of CO2 in New Hampshire, PSNH is proposing two CCPTF Action Items, EGU 2.6 (Importation of Non CO2 Emitting Power) and EGU 2.7 (Regulated Low- and Non-CO2 Emitting Supply-Side Resources).

In EGU 2.6, PSNH wants to build "high voltage transmission lines to import" power from outside New Hampshire, mainly from Hydro Quebec, "to offset future local growth as well as curtail operation of higher cost, carbon emitting generation."

In other words, PSNH wants to meet future load growth with Hydro Quebec power AND continue to operate Merrimack plant at full capacity, thanks to the addition of a proposed $500+ million scrubber. The scrubber, according to PSNH, will lower the overall costs of operating Merrimack station.

In EGU 2.7, PSNH wants legislation "that gives regulated utilities authority to construct and/or acquire renewable generating assets." The total of these renewable energy generating assets is 200-400 MW.

When will this happen?

PSNH wants authority to build 50 MW of biomass by 2012. Additionally, it wants 17 years to build 144 MW of wind power (and 75 MW of distributed generation and 12 MW of photovoltaics) by 2025. Not to be rushed, PSNH wants a total of 400 MW of biomass, wind and an unspecified "other" by 2050—more than four decades from now.

Who will pay for these new generating assets?

"Customers of the regulated utility would pay the cost to construct new generation facilities," says PSNH. Moreover, "customers in New Hampshire and potentially throughout New England would pay for enhanced transmission."

Neither one of these Action Items suggests the elimination of CO2 from the mix of New Hampshire generating plants. Rather, PSNH conveniently avoids reducing its own carbon dioxide by importing clean hydro from Canada and by adding a modest amount of renewable generation.

When the General Court passed HB 1673--principally to reduce mercury--there was very little discussion of the local impact of CO2 emissions. Research at UNH has since validated the ominous impacts of CO2 emissions on New Hampshire's forests, tourism, and public health.

Moreover, in 2006, there was little serious discussion to stimulate the development of renewable energy alternatives to Merrimack station. Today, there are more than 800 MW of wind, hydro and biomass plants in the ISO-NE queue that were planned *after* HB 1673 became law.

Who can build wind energy projects faster and cheaper?

In the five years that it will take for PSNH to spend more than one-half billion dollars of ratepayer money to build the scrubber, 257 MW of wind power could be operational—at no capital cost to the ratepayer. By 2016, an additional 509 MW of clean wind power could be financed and built—again at no capital cost to the ratepayer. Another 500 MW of wind power could be in place by 2025.

Rather than light the candle for carbon dioxide-free wind and renewable energy future, PSNH prefers to curse the darkness at Merrimack station and emit millions of tons of carbon dioxide for decades to come.

Electricity generation in New Hampshire should no longer be based on the continuation of coal-fired generation. The CCPTF should encourage the development of "Zero Carbon" electricity generating facilities.

New Hampshire faces two energy choices: (1) continue to support the emission of millions of tons of CO2 from PSNH fossil-fueled plants; or (2) embrace a "Zero Carbon" policy where existing CO2 electrical generation is gradually phased out while renewable energy sources are phased in.

PSNH should be encouraged to abandon its plans to build the scrubber at Merrimack and be allowed to recover the money it has spent so far in its development.

The CCPTF should seize this policy making opportunity and help New Hampshire break from its CO2 past. By vigorously supporting wind energy and other renewable sources of power, New Hampshire can embrace a "Zero Carbon" future and develop a green, jobs-rich, economy.

Finally, Governor Lynch and energy policy makers in Concord should rethink their earlier commitment to Merrimack in light of the overwhelming evidence of the harm of CO2. By exploiting New Hampshire's wind energy and green power resources, New Hampshire can meet a significant portion of future energy demand while eliminating entirely it reliance on CO2 emitting energy.

Respectfully,

Farrell S. Seiler, Chairman
New Hampshire Wind Energy Association
PO Box 693, Littleton, NH 03561
603-568-4916
windinfo@charter.net

New Hampshire
Wind Energy
Association

ISO New England - New Hampshire Renewable Energy Projects in the Queue

Request Date	Project Type	Project	Fuel	Summer MW	Winter Net MW	County	Commercial Operation
3/06/06	Hydro	TransC	Hydro	169	170	Grafton	11/31/06 - 11/31/09
8/09/06	Wind	Noble	Wind	100	100	Coos	12/15/09
10/20/06	Wind	Noble	Wind	145.5	145.5	Coos	12/30/08
5/15/07	Biomass Project		Wood	45	45	Hillsboro	02/28/10
7/10/07	Biomass Project		Wood	16.5	16.5	Grafton	09/30/08
10/15/07	Biomass Project	CPD	Wood	41	41	Coos	05/31/11
1/03/08	Biomass Project		Wood	50	50	Cheshire	06/30/11
2/15/08	Biomass Project	Laidlaw	Wood	61	64	Coos	12/01/09
3/31/08	Wind	Iberdrola	Wind	50	50	Grafton	12/31/10
10/02/08	Wind	Wagner	Wind	180	180	Coos	09/01/11

Renewable Energy Potential (2008-2012)		
	Capacity	Annual Energy
Fuel Type	MW	kWh
Wood	154.5	1,218,078,000
Wind	475.5	1,457,883,000
Hydro	170	1,042,440,000
Total	**800**	**3,718,401,000**

Greenhouse Gases Avoided by Renewable Energy		
Carbon Dioxide	Sulphur Dioxide	Nitrous Oxide
(tons)	(tons)	(tons)
674,206	1,066	329
806,938	1,276	394
576,991	912	281
2,058,135	**3,254**	**1,004**

Wind Energy
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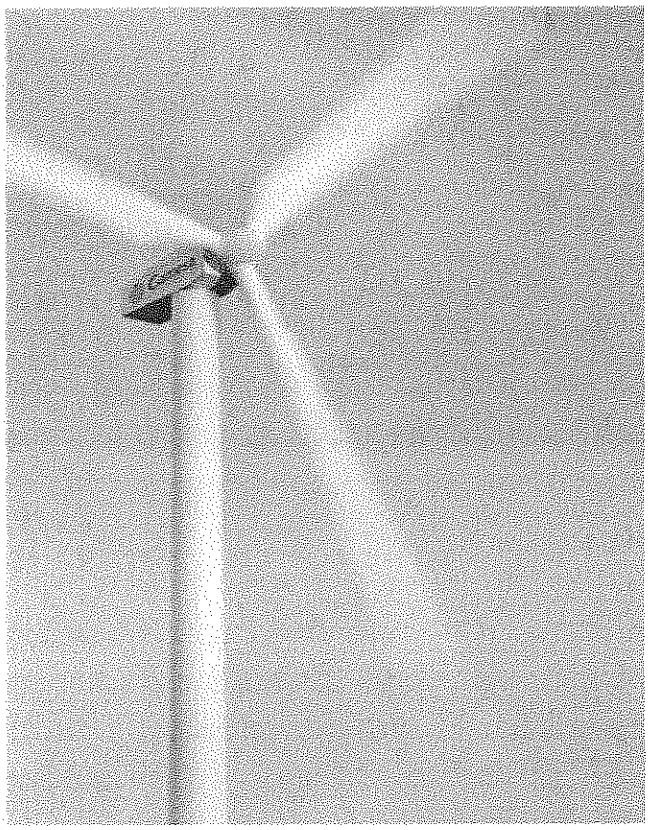
Tons of Green House Gas Emissions Can Be Avoided by New Hampshire Wind Energy Projects Every Year



Twelve Gamesa 2.0 megawatt wind turbines are now under construction on Lempster Mountain (just off Route 10) by Madrid-based Iberdrola S.A.

When completed, 24 megawatts of wind energy will avoid emitting thousands of tons of green-house gases--carbon dioxide, sulphur dioxide and nitrous oxide--and mercury every year.

The Lempster wind farm will generate more than 70 million kilowatt hours of electricity and save more than 96,000 barrels of imported oil annually.

By 2016, more than 1.2 million tons of carbon dioxide could be avoided every year if more than 250 large, utility-size wind turbines are built on windy New Hampshire land.

The New Hampshire Wind Energy Association estimates that more than 750 megawatts of wind turbines could be built in the Granite State during the next eight years. An additional 450 megawatts could be built by 2020.

This Gamesa 2.0 megawatt wind turbine will avoid spewing nearly 3400 tons of carbon dioxide (CO2) into the atmosphere in New Hampshire every year. The wind turbine will never emit carbon dioxide, sulphur dioxide, nitrogen oxide or mercury.

Wind Energy Projects Planned (2008-2016)

	County	Year	Size	Annual Energy	Carbon	Sulphur	Nitrogen
		(est.)	(megawatts)	(kilowatt-hours)	CO_2 (tons)	SO_2 (tons)	NOx (tons)
Lempster/Iberdrola	Sullivan	2008	24	69,426,720	38,428	61	19
Millfield/Granite Reliable I	Coos	2010	99	303,741,900	168,121	266	82
Dixvillle/Tillotson Foundation	Coos	2010	24	73,634,400	40,757	64	20
NE Wind Energy Partners LLC-1	Grafton	2012	30	92,043,000	50,946	81	25
(Grafton Project A)	Grafton	2012	50	153,405,000	84,910	134	41
(Grafton Project B)	Grafton	2012	30	92,043,000	50,946	81	25
Sub Total:			**257**	**784,294,020**	**434,107**	**471**	**145**
	County	Year	Size	Annual Energy	Carbon	Sulphur	Nitrogen
		(est.)	(megawatts)	(kilowatt-hours)	CO_2 (tons)	SO_2 (tons)	NOx (tons)
Millfield/Granite Reliable II	Coos	2015	146.5	449,476,650	248,785	393	121
NE Wind Energy Partners LLC-2	Grafton	2015	30	92,043,000	50,946	81	25
(Coos Project A)	Coos	2016	24	73,634,400	40,757	64	20
(Coos Project B)	Coos	2016	180	552,258,000	305,675	483	149
(Coos Project C)	Coos	2016	30	92,043,000	50,946	81	25
NE Wind Energy Partners LLC-3	Coos	2016	99	303,741,900	168,121	266	82
Sub Total			**509.5**	**1,563,196,950**	**865,230**	**1368**	**422**
Total: 2008-2016			**766.5**	**2,347,490,970**	**1,299,336**	**1839**	**568**

Wind Energy

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October 2008

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Christopher C. Skoglund
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November 3, 2008

Dear Mr. Skoglund:

These comments by TransCanada respond to issues associated with the "New Actions Under Consideration" set forth by the New Hampshire Climate Change Policy Task Force. We appreciate the opportunity to comment briefly and for the record, note that we have various concerns and issues with respect to the New Actions.

EGU Action 2.6 – Importation of Canadian Hydro and Wind Generation

TransCanada supports the Governor's intent and that of many parties to address climate change issues by increasing the supply and availability of renewable energy resources to customers in New Hampshire. We question, however, whether a reliance on Canadian sources of hydro and wind are a "complimentary policy" as stated in the Action 2.6 Summary or are, in fact, harmful to the development of non-carbon generating assets in New Hampshire. As Action 2.6 correctly observes Canada is developing "vast new hydro and wind generation resources, which are greater than their local needs". In fact, those resources are to some extent already in place and would, presumably under the recently adopted RPS standards, be fully capable of swamping the New Hampshire electricity and renewable energy credit market and depressing prices to the extent that indigenous renewable resources or development projects under consideration would be at a distinct disadvantage.

The Action Step correctly identifies that building additional high voltage transmission interconnections with Canada would be a facilitating step for imports. In fact, a clear impediment to development of similar resources within New Hampshire (which among other things would create local jobs, local self-reliance, much-needed additions to local and New Hampshire's Utility Property tax bases and associated economic advantages) is the lack of transmission access **within** the State of New Hampshire. We would respectfully request that the New Hampshire intrastate issues be addressed and resolved by transmission providers prior to embarking on efforts to create additional interstate and international linkages that

don't facilitate economic development issues and other opportunities within New Hampshire. Governor Lynch's strong endorsement of the North Country Council and Northern Forest Center's Sustainable Economy Initiative (SEI) identifies many of the "economic backbone" issues associated with a concerted effort in the northern part of the State to "harness renewable energy". We believe that indigenous renewable resources are preferable to imports and therefore caution against spending ratepayer funds for transmission upgrades that do not benefit renewable energy generators located **within** New Hampshire or the region.

Facilitation of the importation of Canadian hydro and wind would potentially undermine renewable energy goals in New Hampshire. While Canada is a valued neighbor, trading partner and friend, part of the benefit of generation diversity and increased access to renewables within New Hampshire is the much needed economic development advantages associated with locating those resources here. We should not be taking steps in the name of "Climate Change" to destroy or hinder the economic development opportunities associated with renewable energy resources that are sited within New Hampshire.

Also, omitted from the Action Step discussion is the tie between the existing RPS rules and the proposed importation of Canadian hydro and wind. The existing RPS rules in every state, as they presently stand, allow qualifying renewable imports to count if the energy is "delivered" to NEPOOL. Essentially the only requirement is "delivery". No term, no firm obligation, no consequences of delivery failure are specified. TransCanada would describe that as a "Seller's convenience" delivery standard. No one buys power on that basis – yet by 2015 NH will potentially have 6% of its power delivered on those terms (MA will be 10%) and 11% by 2020 (MA will be 15%).

In Massachusetts legislation was recently passed as the Green Communities Act (GCA) to, among other things, begin to deal with importers and the utility preferences identified in this draft Action Step. TransCanada believes this "sleeper issue" threatens the further development of renewable energy resources in New England. New Hampshire might be an appropriate place to consider whether the RPS law needs to be modified? Recently in Maine, the chair of the Joint Committee on Utilities and Energy of the State Senate went on record with the NEPOOL Markets Committee with respect to this issue. The letter objects to the proposal to amend the Generator Information System (GIS) to recognize unit-specific attributes of generators located beyond adjacent control areas. Specifically, the letter points out that Maine's enactment of RPS in 2007 considered the status of the GIS rules at the time, which restricted generator imports to adjacent control areas. The letter sent by Maine continues that "...the need to build new renewable generation in Maine not only to satisfy the state's RPS requirement, but also to build provide jobs, economic development, electric infrastructure, etc..." is socially and economically beneficial and the proposed modification of the GIS operating rules is "...inconsistent with the policy objectives of this state." It is TransCanada's view that New Hampshire's Climate Change Policy Task Force, in its "New Actions Under Consideration", should also reconsider and refine their approach to this issue.

EGU Action 2.7 – Allow Regulated Utilities to Build Renewable Generation

History in New Hampshire and across the United States has demonstrated multiple times that the construction of electric generation is a capital and risk intensive business. Even with substantial regulatory oversight, it is difficult and challenging to accurately forecast future electricity prices and

costs associated with large capital projects in a volatile economy. Everyone of age in New Hampshire remembers well projects that were expected to ultimately be "too cheap to meter". When mistakes have been made in the regulated utility sector ratepayers have been required to pick up regulated utility costs that have been subsequently stranded. We believe that this was an important driving force behind the state policy embodied in RSA 374-F, which put the state on the course toward deregulation of the electric generation sector in New Hampshire. If a regulated utility chooses to build generation in New Hampshire, TransCanada would have no objection to the utility using or establishing an un-regulated subsidiary to accomplish that purpose with shareholder funds. Captive ratepayers should not be forced to take risks associated with new generation investments.

TransCanada Corporation operates both regulated and competitive businesses successfully. Regulated utilities doing business in New Hampshire are investor-owned. TransCanada would have no objection to regulated utilities building generation as long as the associated risks fall to utility investors instead of its ratepayers. The shareholders who invest in competitive energy companies have assumed both the rewards and the risks of their investment decisions. If a competitive market did not exist in New Hampshire and there was no alternative to a cleaner and more renewable asset fleet, the situation might be different. However, given that there are many competitive electricity resources either already operating in New Hampshire or hoping to do business here, it would be extremely unfair to allow new generation be built by utilities with guaranteed revenues through regulated rates. Climate change policy should complement not undermine the competitive electricity market and the policy embodied in RSA 374-F by the NH Legislature.

The reality exists that there are renewable generation development companies that have projects waiting in a queue to build. Those businesses are risky, margins are tight, and access to transmission is frequently poor and costly. With recent turmoil in the financial markets we have seen scale-backs of development projects and a general lack of new renewable development. TransCanada is proud of its recent redevelopment of Vernon Station on the Connecticut River but acknowledges that what began as a $30 million project ended up costing well over $50 million. This environment is, we think, relatively typical, of the generation build and refurbish landscape. The risks, challenges and rewards should be shouldered by investors, either utility or competitive, not captive ratepayers going forward.

Although the Action Step 2.7 imagines a history of electric generation restructuring in New Hampshire, we believe that it is "safe" to say that the so-called "safety net" created by the decision to forego full divestiture by PSNH is anything but safe to ratepayers and deserves serious discussion before allowing new construction of utility-owned renewable generation to proceed.

Action 2.7 properly acknowledges that transmission is a major constraint and need associated with new renewable generation. Regulated utilities in New Hampshire operate transmission businesses and are compensated fairly for providing transmission services. Traditional and current scenarios envision competitive power projects paying for the construction of transmission in order to generate when transmission capacity is lacking. This Action states that "customers in New Hampshire and potentially throughout New England would pay for enhanced transmission". If "customers" and "ratepayers" are synonymous then this is an important step in the right direction in creating renewable generation opportunity within New Hampshire. While TransCanada readily acknowledges that transmission infrastructure is also capital intensive and risky, it is not infrastructure that would clearly benefit by competing providers at this time. It will likely remain regulated and therefore ratepayers are presumably

safeguarded by regulatory oversight and resulting prudent investments in transmission upgrades that have public benefit. New Hampshire should support policies that encourage regionalization of the costs of transmission upgrades that will bring benefits to the region, so that New Hampshire ratepayers only pay a fair share of those costs. New Hampshire should also support policies that provide mechanisms for renewable generation developers to share the costs of transmission upgrades with ratepayers.

EGU Action 2.8 – Identify and Deploy the Next Generation of Electric Grid Technologies

TransCanada supports Action 2.8. Optimizing energy efficiency and conservation of natural resources are goals that should be readily shared by all participants in electric markets.

EGU Action 2.9 – Promote Low and Non CO2 Emitting Distributed Generation

TransCanada generally supports Action 2.9 and notes that although SB 451 authorizes utility investment in distributed generation, opportunities for customers to invest in distributed generation already exist in the marketplace without the necessity of guaranteed ratepayer/utility funding. Although there are many elements of actualizing a distributed generation project that fall to the utility side of the meter, for those that benefit customers directly in electricity savings those costs don't need the participation of utility ratepayers to produce the intended result of additional penetration of cost-effective distributed generation.

In closing, TransCanada commends the hard work of the Task Force and notes that climate change is a real issue deserving the attention that this Task Force has provided. We note, however, the membership of the Governor's Climate Change Policy Task Force has not included all stakeholders. There has been no representation from the competitive and unregulated generation sector, whose members own clean, renewable generating assets in New Hampshire, provide local jobs, pay taxes to municipalities and the State and do it all without receiving guaranteed cost recovery from ratepayers. To the extent that electric generation is a contributor to climate issues, we feel that all options and all stakeholders should be included in the discussion to optimize the benefits of collaborative thinking. Accordingly, we are pleased by the opportunity to comment on these Actions.

Sincerely,

Cleve Kapala
Director, Government Affairs and Relicensing

Cc: Thomas S. Burack, Commissioner, NH Department of Environmental Services
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November 3, 2008

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Re: Climate Change Policy Task Force
Energy Generation and Use (EGU) Sector
"New Actions under Consideration" document of October 20, 2008

Dear Mr. Skoglund:

Thank you for this opportunity to provide additional public comments to the Climate Change Policy Task Force in light of the October 20, 2008 document outlining four new proposed task force recommendations. As you know, those recommendations are (1) importation of Canadian hydro and wind generation, Action 2.6, (2) allowing regulated utilities to build renewable generation, Action 2.7, (3) identifying and deploying the next generation of electric grid technologies, Action 2.8, and (4) promoting low- and non-CO_2-emitting distributed generation, Action 2.9. Please treat my comments as cumulative of those I have previously filed about the other recommendations under consideration for the EGU Sector.

All four new actions under consideration for the EGU sector are sound recommendations that the Task Force should incorporate in its final report. Each is a practical proposal that, to varying degrees, was the subject of discussion and consideration before the Public Utilities Commission (PUC) and/or the Legislature during my recently concluded tenure at the PUC. Thus, to a significant extent these proposals have already been explored and could be adopted with relative speed. With climate change looming and dangerous "tipping points" either nearby or already passed, ideas that can be implemented quickly deserve especially serious consideration.

Action 2.6 -- New Transmission Link to Canada

As the October 20 document points out, New England enjoys a longstanding course of dealing with Hydro Quebec and our region has long been the beneficiary of Quebec's willingness to export its vast (and growing) supply of renewable energy. There has been,

at times, a troubling undercurrent of protectionism in discussions of whether New Hampshire should increase its reliance on imported hydro and wind power.

Policymakers should resist such entreaties, if only because they raise serious constitutional issues and thus threaten to entangle the state's energy policy in protracted litigation.

However, the Task Force should refine this recommendation in certain respects. The Task Force should explicitly acknowledge that locally produced hydro and wind power is more prudent than power wheeled in from elsewhere, regardless of whether the power is imported or generated in another region of the U.S. Although the advent of high-voltage, direct current transmission lines significantly reduces what would otherwise be daunting line losses, the fact remains that, watt for watt, local power is more economically beneficial because (1) recoverable capital costs are less likely to be extracted and remitted to distant owners, and (2) as with all products and services, locally produced electricity has wealth-creating multiplier effects that distantly produced electricity lacks.[1]

The Task Force should also confront the ratemaking and restructuring implications of such a plan more forthrightly than does the current draft. For many decades now, Vermont has relied on Hydro Quebec for the bulk of its electric energy. The resulting lack of hedging has placed Vermont at a significant disadvantage at times when its utilities were locked into long-term contracts at rates significantly higher than those on offer from other sources. At other times, such as now, Vermont has enjoyed price advantages as the result of longterm Hydro Quebec contracts but always with the looming concern that contracts will end and rate shock could result.

More critically, Action 2.6 appears to adopt with startling casualness a significant retrenchment from the industry restructuring the Legislature embraced 12 years ago with the adoption of the Electric Industry Restructuring Act, RSA 374-F. I refer to the draft's suggestion of a "primary cost approach" to building a new transmission link to Hydro Quebec – one that would involve customers paying a single bundled rate for energy and transmission that would "need to be at or below market prices."

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[1] Although the realities of multiplier effects, and the economic advantages of locally produced goods and services, are the stuff of complex economic analysis, the underlying realities can actually be grasped with relative ease. My previous comments referenced *The Nature of Economies* (2000), the penultimate book by Jane Jacobs that analogizes economics to ecology. As Jacobs notes, a forest ecosystem is richer and more diverse (i.e., wealthier in the ecologic sense) than a desert because, in the latter ecosystem, the passage received energy (in the form of sunlight) is "swift, simple, and vanishing, leaving no evidence of the passage." *Id.* at 46. "Contrast that with energy flow through a well-developed forest ecosystem . . . . [where] energy flow is anything but swift and simple, because of the diverse and roundabout ways that the system's web of teeming, interdependent organisms uses energy. . . . It leaves behind, in complex webs of life, ample evidence of its passage." *Id.* According to Jacobs, whether the system under examination is an ecosystem or the human slice of such a aystem described by economists, "[t]he more different means a system possesses for recapturing, using, and passing around energy before its discharge from the system, the larger are the cumulative consequences of the energy it receives." *Id.* at 47.

In effect, this amounts to a return to the integrated, least-cost planning process that applied to vertically integrated electric utilities prior to the unbundling of retail electric rates and the (largely theoretical) opening of retail energy supply to competitive procurement. It may well be time for New Hampshire to reexamine the fundamental paradigm under which it has regulated electricity for the past 12 years, but the state should be skeptical about doing so on an ad hoc, piecemeal basis.

Action 2.7 – New Generation Facilities for PSNH

One aspect of restructuring in New Hampshire that has not been helpful, and that the state should revisit in the near term, is the prohibition on electric utility development and ownership of new generation capacity. Although, as the draft points out, PSNH is both the only utility that currently owns a generation fleet and has actively pursued opportunities to expand that fleet, there are other possibilities as well, *e.g.*:

- Unitil persuaded the Legislature to adopt 2008 Laws Ch. 373 (Senate Bill 451) to encourage it to develop small-scale distributed generation facilities,

- Electric cooperatives in Vermont have been proactive developers of relatively small-scale renewable energy facilities and such activities might well be deemed by the New Hampshire Electric Cooperative as in the best interests of its member-owners, and

- It is conceivably in the public interest for National Grid to reacquire the Connecticut River hydroelectric facilities that are within or near its New Hampshire retail service territory.

With respect to PSNH in particular, it is noteworthy that in the face of general consensus that New Hampshire (and, in particular, the North Country) needs new renewable generation facilities, PSNH is the only generation company that has consistently expressed a near-term willingness to develop such a facility. Rival generation companies have repeatedly thwarted PSNH's efforts to gain the requisite legislative authority by alleging that, as a regulated utility and monopoly distribution provider, PSNH would enjoy unfair advantages over other energy producers.[2] These arguments, while colorable, are ultimately unpersuasive.

[2] At least two successive biannual sessions of the New Hampshire General Court have grappled with the question of whether New Hampshire should commit itself to the so-called "hybrid" restructuring model by allowing a restructured PSNH to add to its fleet of non-nuclear generation facilities. Thus, unlike the transmission-related rate rebundling initiative contained in proposed Action 2.6, discussed *supra*, this is a potential adjustment to thee paradigm that has could not reasonably be characterized as ad hoc or piecemeal.

To the extent that new PSNH generation facilities would be subject to guaranteed cost recovery, this shareholder-favorable risk profile can and should be reflected in PSNH's allowed cost of capital which, in turn, would yield cost benefits that can and should be passed along to customers. Meanwhile, particularly if the state uses its authority to subject PSNH to the full breadth of integrated least-cost planning requirements, New Hampshire would regain a modicum of control over the development of its generation infrastructure rather than leave that development to the vagaries of a marketplace that has, so far, not proven up to the task. Finally, it should be noted that since its acquisition by Northeast Utilities, PSNH has proven itself to be a highly reliable generation owner, with facilities that run at a consistently high capacity factor and costs that have been subject to virtually no prudence-related disallowances by the PUC.

The underlying purpose of restructuring is safe and reliable energy at the lowest possible cost with as few environmental impacts as possible.[3] Whether by design or by happenstance, it appears that PSNH is in the best position to achieve that purpose for its customers.

Action 2.8 – Build the Smart Grid

The addition of a state-of-the art, digitally "smart" electric grid as an important public policy objective for New Hampshire represents a significant enhancement of the Task Force's recommendations. The "phased-in approach" embraced by the October 20 document adds a crucial dose of realism; the relevant technologies are still in their early stages and, at this point, a key challenge is avoiding the wrong path – i.e., investing significant amounts of money, to be recovered from customers, that would be the equivalent of purchasing Betamax instead of VCR.

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[3] Specifically, here is how the Legislature framed the Electric Industry Restructuring Act:

> The most compelling reason to restructure the New Hampshire electric utility industry is to reduce costs for all consumers of electricity by harnessing the power of competitive markets. The overall public policy goal of restructuring is to develop a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment. Increased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that will require unbundling of prices and services and at least functional separation of centralized generation services from transmission and distribution services.

RSA 374-F:1, I. What this reflects is a legislative *hypothesis* that opening energy markets to competition, if authorized, would serve the ultimate policy goals.

However, as organizational development visionary (and MIT management professor) Peter Senge recently observed, "[i]t's not what the vision is, it's what the vision does."[4] Action 2.8, as presently drafted, lacks a coherent vision.

An appropriate vision for a smart grid would note that such an initiative can be implemented in four discrete phases: smart load (i.e., major customers or groups of customers that receive information about conditions in the wholesale market and inform system operators about how they will respond), smart monitoring (i.e., deployment of switches and substation equipment that would allow utilities to monitor actual conditions on the distribution system), smart dispatch (allowing utilities to manage their distribution networks at a granular level to optimize power flows and address system anomalies) and, finally, a fully digitalized grid along the lines contemplated by the "Intelligrid" initiative of the Electric Power Research Institute (EPRI), so that New Hampshire has a grid that is "self-healing" and fully interactive down to the level of individual devices on customer premises. *See* <intelligrid.epri.com>. Smart load is already a reality to a significant extent; the remaining three levels can be attained, successively, over the next 20 years. Accordingly, the Task Force should set such a 20-year achievement as its explicit objective, charging the PUC with pursuing the appropriate initiatives (both by exercising its plenary authority over utilities and by undertaking efforts at the regional and federal levels). Even if the objective is not achieved and/or ultimately acquires adjustment, working towards it will reap great public benefits.

Action 2.9 – Distributed Generation

The Task Force should adopt the proposed recommendation to promote distributed generation of the non-carbon emitting variety. There are no sound policy reasons to provide taxpayer-funded or ratepayer-funded incentives to distributed generation facilities that emit carbon, even if such facilities are relatively less carbon-intensive than some of the centralized power to be displaced. At this point, the carbon challenge is too pressing to justify subsidizing or even encouraging half-hearted measures. *See* RSA 378:37 *et seq*. The Task Force should therefore delete references to low-carbon-emitting facilities as a desired objective.

As currently drafted, Action 2.9 refers somewhat generally to incentives, specifically mentioning "direct incentives for system purchase" and "market incentives." Action 2.9 should be revised to rule out the possibility of incentives to utilities in the form of so-called "adders" to the otherwise applicable allowed return on equity derived through conventional ratemaking. Such incentives are both unnecessary – New Hampshire law already obligates utilities to deploy their capital on an efficient, least-cost basis – while

[4] Peter Senge et alia, *The Necessary Revolution: How Individuals and Organizations Are Working Together to Create a Sustainable World* (Doubleday, 2008) at 324. The example that Senge and his colleagues offer is the detailed, 100-point rating system that basketball great Bill Russell developed as a self-assessment tool. He used the system to evaluate his play in each game of his 14-year NBA career, never attaining a perfect score. "He played a thousand games in his life and never achieved his vision. Yet he was the most successful player in history, judged by what he and his teammates achieved and the unprecedented eleven championship rings in his collection." *Id.* At 325-26.

transgressing longstanding, constitutionally derived cost-of-service ratemaking principles. Simply stated, cost-of-service ratemaking already compensates utility shareholders appropriately by setting a cost of capital that reflects the risk profile of the service provided by the utility. Once the process yields just and reasonable rates reflecting the appropriate return on equity, an adder is the functional equivalent of a donative transfer payment. If utilities are unwilling to place their corporate resources behind the development of customer-sited distributed generation, then in a restructured industry there is every reason to open this opportunity to the competitive marketplace.

In the same spirit, the Task Force should make a slight revision to its characterization of the parties affected by implementation of the proposed action. Currently, the draft refers to utilities and consumers as the parties paying for implementation but lists only "[a]ll consumers" as the parties benefitting from implementation. Customer-sited distributed generation, as with renewable energy generally, represent business opportunities and thus should also be characterized as benefitting the investors of whichever utilities and other businesses pursue these opportunities. This is no trivial point: The Task Force, and New Hampshire generally, should adopt as a broad theme the notion that, at an appropriate level of regulation, the market economy will do well by doing good – the "good" in this instance being the preservation of civilization itself in the face of the challenge presented by climate change.

Some Concluding Thoughts

As Amory Lovins pointed out to the Berlin Conference on the Human Dimensions of Global Environmental change earlier this year, in 2006 the U.S. made a dollar of real GDP with 48 percent less total energy, 54 percent less oil, 64 percent less directly used natural gas, 17 percent less electricity, and two-thirds less water than the U.S. did in 1975.[5] These improvements occurred even though, during most of those years, energy and resource efficiency was not on the national agenda and climate change was not a widespread concern. The Task Force, and policymakers in New Hampshire generally, should embrace, and make central to their public pronouncements about our energy future, Lovins' hypothesis that additional leaps are not only possible but ultimately profitable from an economic standpoint.[6]

The Task Force should not merely invoke economic self-interest, however, at a time when the people of New Hampshire and the U.S. generally are open to broader appeals to the greater good. As a nationally prominent political figure has memorably said: "Energy will be the immediate test of our ability to unite this nation, and it can also be

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[5] *See* <www.rmi.org/images/PDFs/Energy/BerlinVideo23ii08.pdf>.

[6] Specifically, in the same Berlin presentation referenced above, Lovins maintained that full use of today's best end-use efficiency techniques would deliver the same or better services while (1) saving half the oil, at a sixth of its price, and (2) half the natural gas, at an eighth of its price, (3) three-fourths of the electricity, at an eighth of its price. According to Lovins, investing to achieve those savings over several decades would cost six times less than buying the energy, and would make energy prices lower and less volatile. Even if these estimates are too optimistic – and I have no evidence to suggest they are – it is clear that bold steps to address climate change have the potential to be profitable as well as world-saving.

the standard around which we rally. On the battlefield of energy we can win for our nation a new confidence, and we can seize control again of our common destiny."

Although it was President Jimmy Carter who issued that call nearly a generation ago (in a July 15, 1979 nationally televised address widely and inaccurately derided as the "malaise" speech), the challenge resonates anew. Thank you for inviting and considering my views.

Sincerely,

Donald M. Kreis
Associate Director/Assistant Professor of Law
Institute for Energy and the Environment
Vermont Law School

LETTERS

Many in Berlin not in favor of biomass project

To the editor:

Does the Laidlaw project pertinent to the Berlin Burgess mill site negate the governor's 2025 initiative? Accepting Berlin's boiler and stack as part of the governor's initiative may appear to be an easy way out for the city and the state in moving fictitiously towards the governor's 2025 alternative energy policy, but truly at the expense of the city's motto (city that trees built) or at the expense of substantially higher electric rates with whole tree usage. Part of the 2025 initiative mistakenly assumed adequate low quality wood supply as this assumption occurred prior to three recent independent wood studies and was based on now outdated wood studies. The following statement by Governor Lynch has been proven questionable or at least outdated through these revised wood studies.

"Increasing renewable energy would take advantage of New Hampshire's ample wood supply, and encourage the responsible harvesting of lesser-grades woods - which will help preserve our forests from development," Gov. Lynch said.

Another reason behind the 2025 initiative is to create competition presumably by lower prices as stated by Lynch in this quote:

"All of these sources have great advantages for our state - providing competition to expensive oil and natural gas and adding much-needed diversity to our energy supplies. In addition, we can generate them right here in New Hampshire; they will create jobs in New Hampshire; and they do not produce emissions that ruin our environment and cost millions of dollars to control and reduce, and which hurt other sectors of our economy," Gov. Lynch said.

Berlin has many arguments against this plant and a major part of the population does not want this plant as there is another proposal offered by an affiliate of Concord Steam, Mel Liston, who's "working barn style under 30MW plant" would blend well into the countyside on the outskirts of town in significant contrast to the city's central attraction of a 300 foot stack and rusty boiler. Making the wrong decision over which biomass company operates in Berlin could negate the 2025 initiative as far as Berlin's involvement, completely. I urge all decision makers in Concord to come up and view the foliage that beautifully surrounds this eyesore. Take a very good look at this boiler and 300 foot stack, and talk to the thousands of people that live at its base.

Berlin is the city that trees built and it is the city that trees can make or break. Berlin and the entire state should be questioning wood supply and the reasons behind the 2025 initiative at the same time the state is performing its wood study. If this plant stands to jeopardize the very purpose of the 2025 why let the "boiler" fire up here? The following points can be grounds for inconsistencies between the firing up of that boiler and the 2025 initiative.

A low lying area with thousands within a population at the very base of the boiler can create health problems, can impact noise level, can ruin the view in colder months with its massive cooling towers spouting out clouds of steam, can impact

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the curb appeal of the city's center, can impact the tourism business if you're taking away the trees they come to see and utilize, can negatively impact wildlife through current forestry misinanagement taking place within clear cutting, and potential future abuse of the forest, can create wood shortages for power plants elsewhere that employ NH people, and can drive the price of power to extremes through whole tree usage rather than create competition for "expensive oil and natural gas". Therefore, one could say the boiler is not consistent with the 2025 initiative based largely on statistical data that was unavailable pertinent to the wood studies at the time this 2025 initiative was enacted along with negative impacts to NH's population and the infrastructure of trees. This initiative needs to be amended to carefully protect what governor Lynch refers to in his 2025 initiative as follows:

"...encourage the responsible harvesting of lesser-grades woods - which will help preserve our forests from development," Gov. Lynch said."

Before you decide on the fate of our city, please come to Berlin, look at the boiler, read the wood studies, and view the alternative biomass facility website at http://www.cleanpowerdevelopment.us/., and please don't be mislead that Berlin's population is in favor of this project. Quite to contrary many of us believe the project completely negates the 2025 initiative and jeopardizes NH's way of life, and can create escalated, noncompetitive power prices. For the "other opinions" that Berlin's population express on a regular basis, I urge you also to view posts and reader comments from the following blog: http://2much2do4now.typepad.com/. Berlin's new mayor and council majority have recently reaffirmed that they would like to see alternatives to biomass on the old mill property. On the city's website, http://www.berlinnh.gov/Pages/index , down the right hand column, under "City News" please read the mayor's letter, 6.3.08. 6.3.08Biomass on the Former Fraser Property. Thanks, in advance, for listening to the people of Berlin and for making decisions that fit within the definition of the 2025 initiative, and please provide this information to any decision makers that you feel may benefit from it.

Jonathan Edwards
Berlin

CITY OF BERLIN

Office of the Mayor

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DATE: 06/02/2008

TO: CITIZENS AND CITY COUNCIL OF BERLIN, NH

CC:

FROM: DAVID BERTRAND, MAYOR, CITY OF BERLIN, NH

RE: BIOMASS ON THE FORMER FRASER PROPERTY

With the closing of the Fraser Pulp mill in Berlin and its subsequent demolition, the landscape of the City of Berlin has been forever changed. Along with this change in the landscape comes a one time opportunity for Berlin to chart a new course for its future and the future of its residents for generations to come. Since being elected as Mayor last November, I have talked to many of the residents of this City, and the vast majority of them are ready to embrace a new direction for our City. And they are nearly unanimous in their opposition to having a biomass facility located at the old recovery boiler on the former Fraser mill property. While most are willing to consider a biomass facility or other renewable energy facility somewhere further from the center of the City, it is quite apparent that the current biomass proposal is not what the residents of Berlin desire as the centerpiece for the former mill property. The citizens of Berlin no longer want a smokestack as the dominant feature of their downtown. As the elected Mayor of the residents of Berlin, I feel I must at this time ask the current owners of the property, North American Dismantling, to commit to other options for the future use of the property. This 120 acre property is centered in a small city where the natural surroundings make it one of the most desirable pieces of property in the North Country. The scenic resources are a key component of our future economic development, and the type of structure that currently exists, and its associated smokestack, are a detriment to our ability to pursue avenues of economic development that have the natural beauty of our surroundings as a key component.

The City of Berlin is willing to work with the current landowner to help facilitate mixed use development options that can be of benefit to all. We will continue to reach out to North American Dismantling to strive to come to some mutually beneficial outcome for both NADC and the City of Berlin. In the meantime, however, I believe that we must do what we can legitimately do within our delegated powers as a City Council to protect our community's future. Therefore, I am urging the City Council to support the proposed Zoning Amendment to establish Special Exception criteria for Energy Facilities in our Industrial/Business Zone. I urge the Council to do this in order to protect the City's future on this and any other energy facility proposed for the heart of our City. Thank you.

David Bertrand

Mayor, City of Berlin, NH