The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

March 9, 2011

The Honorable Kenneth Weyler, Chairman
House Fiscal Committee
Legislative Office Building, Room 210-211
Concord, NH 03301

Re: HB 519-FN relative to Repealing New Hampshire's Regional Greenhouse Gas Initiative (RGGI) Cap and Trade Program for Controlling Carbon Dioxide (CO_2) Emissions

Dear Chairman Weyler and Members of the Committee:

Thank you for the opportunity to comment on behalf of the Department of Environmental Services (DES) regarding House Bill 519-FN, which seeks to repeal New Hampshire's Regional Greenhouse Gas Initiative (RGGI[1]) cap and trade program for controlling carbon dioxide (CO_2) emissions. In the interest of long-term regulatory and market certainty, DES believes that any contemplation of revisions to the state's RGGI program would best be considered in the larger context of the statutorily required 2012 comprehensive review of New Hampshire's RGGI program (pursuant to RSA 125-O:27). Therefore, DES does not support the bill and recommends that action be deferred pending completion of the 2012 review.

The Science, Technology, and Energy committee previously heard this bill, and voted ought to pass on a policy basis, and the full House upheld that vote. However, that committee did not have a fiscal note available to review at the time of their vote, and some fiscal impacts were not thoroughly discussed during the executive session. It is important to take this opportunity to clarify certain misconceptions about New Hampshire's participation in RGGI, and focus on the fiscal impacts that your committee should be aware of.

First, and foremost, is that New Hampshire is economically better off participating in RGGI than not. Approximately half of the state's power consumption is purchased from the 6-state New England regional grid and the costs of RGGI implementation in the other nine states is reflected in the regional electricity rate. Should New Hampshire withdraw from RGGI, DES and PUC estimate this ongoing additional cost to be approximately $5.6 million to New Hampshire ratepayers. If New Hampshire continues its participation, the state would realize an estimated $12 million from the sale of RGGI allowances allocated to New Hampshire to offset this additional cost, and reinvest the proceeds in energy efficiency measures.[2]

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[1] *RGGI Fact Sheet*, RGGI, Inc. website http://www.rggi.org/docs/RGGI_Fact_Sheet.pdf

[2] *Economic Impact in New Hampshire of the Regional Greenhouse Gas Initiative (RGGI): An Independent Assessment*,– University of New Hampshire (Gittell and Magnusson January, 2008) website http://des.nh.gov/organization/divisions/air/tsb/tps/climate/rggi/documents/unh_rggi_study.doc

Although RGGI is clearly intended to address climate change, it is important to understand that only after significant study and debate, New Hampshire opted into RGGI as a "no regrets" policy that directly benefits the state both economically and from an energy independence perspective. These conclusions remain fundamentally sound today, whether or not one believes that climate change induced by emissions of greenhouse gases from human activity is occurring or not. While both DES and the Public Utilities Commission participated in the development of RGGI, we did not endorse joining until we were certain that the program met our state's needs and would not impose economic hardship on New Hampshire citizens and ratepayers.

New Hampshire was one of the last states to join RGGI, and we did so only after a UNH economic study confirmed that New Hampshire would be better off participating in RGGI than not, and RGGI would have a net positive impact on New Hampshire's economy as well as help to stabilize, and over the longer term, reduce the state's electricity costs. Even then, New Hampshire's enabling legislation enacted several safeguards to additionally protect the state from potential unintended consequences of any significant market volatility.

There are several additional significant benefits to implementing RGGI in New Hampshire. RGGI is an economic and environmental "win-win," a pro-business strategy that:

- helps to mitigate and ultimately reduce long-term energy costs via greater investment in energy efficiency;
- creates a market signal that encourages development of cleaner and, in many cases, more local energy sources;
- increases our energy independence with more local energy sources, thus keeping more energy dollars local;
- starts to reduce greenhouse gas (GHG) emissions to avoid the most deleterious projections of climate change impacts;
- increases economic opportunities for New Hampshire businesses for development of clean energy technologies; and
- places New Hampshire's generators in an advantaged position to respond to future federal policies and better manage carbon-constrained energy markets.

Market-based implementation has resulted in competition, efficiency, and innovation that have delivered emission reductions at the lowest possible cost. New Hampshire's participation has allowed the state to mitigate the electricity cost impact of RGGI implementation throughout the rest of the ten state region, as compliance costs have been reflected in the regional wholesale price of electricity. This has been accomplished through the creation of a state fund to increase energy efficiency from the sale of RGGI allowances.

One criticism heard during the House debate was that investments of state proceeds from RGGI allowance auctions are somehow perceived as beneficial only to those individuals, municipalities, and businesses directly receiving RGGI grants. To the contrary, any investment of RGGI proceeds toward energy efficiency directly benefits all New Hampshire citizens and ratepayers by reducing the overall demand for electricity, which in turn reduces the additional capital investment needed by electricity providers to meet increased demand. In particular, the high cost of "peaking" plants to meet demands on the hottest days of the year are reduced or avoided. All of these costs are ultimately passed on to all New Hampshire consumers and keeping them low is in the best interests of all citizens, businesses and municipalities. Thus, investments in energy efficiency ultimately reduce costs for everybody.

In any grant award process it is important to remember that there will always be "winners" and "losers", and those not receiving grants may question the evaluation process. While DES believes that PUC staff have done an excellent job administering the Greenhouse Gas Emission Reduction Fund (GGERF) proceeds, there is always a legitimate conversation to be had over the statutory requirements for investment of the funds and oversight of the process used to award grants. It must be recognized that, in addition to the PUC's internal process, the Governor and Executive Council have and must still approve all grant awards recommended by the PUC. While there has been some criticism leveled at the grant awards process recently, DES staff have participated in this process and the legislature can be assured that the funds were administered in the full spirit of the statute and were given to those recipients who demonstrated they could get the "best bang for the buck" in terms of realized and demonstrable efficiency savings. This process was open to anyone who applied and met the criteria. DES stands ready and willing to discuss any suggestions for improving this process.

It should also be noted that New Hampshire was one of the first states to get RGGI dollars flowing into our economy and the results are already beginning show significant energy savings and job creation according to a UNH analysis commissioned by the PUC. Specifically, grant programs in the first year of the RGGI Fund generated a savings of $1.5 million to state businesses, communities and residents. The lifetime savings from the $17.7 million awarded for this period are projected to be $60.0 million, based on current energy costs. While necessarily some of the initial grants were awarded for certain "foundational" purposes (e.g., providing job training, benchmarking the energy performance of municipal buildings), subsequent grant rounds created far-reaching programs that will result in actual energy reductions across all sectors in New Hampshire. The so-called foundational grants totaled $3,363,742, while direct impact grants totaled $28.9 million.

Criticism was also expressed over the use of $3.1 million from the GGERF to help balance the Fiscal Year 2010 state budget. While we at DES also had concerns, we recognized that difficult budget decisions had to be made. It is important to put into perspective that, of close to $30 million in RGGI allowance auction revenues generated to date, nearly 90% has been spent on the intended use of energy efficiency. This is well in excess of the minimum 25% figure required by the RGGI states Memorandum of Understanding signed by Governor Lynch in 2005. Again, DES would welcome the opportunity to hear suggestions for better ensuring that the GGERF is better protected to ensure its intended use.

Lastly, many expressed concern that there is little that New Hampshire alone could do to reduce carbon emissions that would have any significant impact on climate change. This is exactly why RGGI was conceived. The 10 RGGI states represent the 7th largest economy in the world when considered as a region, and our joint efforts under this initiative will reduce regional emissions from the power generation sector of 188 billion tons of CO_2 by 10% or 19 million tons. This is a very significant reduction and, in conjunction with other measures, will help the region achieve our joint climate goals while helping to secure energy independence and promote the transition to a new energy economy with associated job creation. Attached is a summary of the UNH analysis to help you better understand the economic and energy impacts of the initial RGGI grants.

Implementing RGGI for New Hampshire is good policy, as it makes sense both economically and environmentally. Stabilizing and then modestly reducing emissions of CO_2 that contribute to climate change is a good first step. The RGGI Program, through the market signals it sends, has begun the process of creating a long term climate change action policy[3] for New Hampshire and it should not be repealed.

DES looks forward to working with all who share an interest in addressing climate change in an economically beneficial manner. Thank you for the opportunity to provide testimony. Should you have further questions or need additional information please feel free to contact Robert R. Scott, Director, Air Resources Division (271-1088, rscott@des.state.nh.us).

Sincerely,

Thomas A Burack

Thomas S. Burack
Commissioner

cc: HB 519-FN sponsors

[3] *A Climate Action Plan For the State of New Hampshire* released on March 25, 2009 http://des.nh.gov/organization/divisions/air/tsb/tps/climate/action_plan/index.htm

Regional Greenhouse Gas Initiative

an Initiative of the Northeast and Mid-Atlantic States of the U.S.

Fact Sheet: The Regional Greenhouse Gas Initiative (RGGI)

- **What is RGGI?**
  The Regional Greenhouse Gas Initiative (RGGI) is the nation's first mandatory, market-based program to reduce emissions of carbon dioxide (CO_2), the principal human-caused greenhouse gas.

  The ten states participating in RGGI have established a regional cap on CO_2 emissions from the power sector and are requiring power plants to possess a tradable CO_2 allowance for each ton of CO_2 they emit.

- **What does RGGI do?**

  RGGI reduces CO_2 emissions by establishing a regional cap on the amount of CO_2 that power plants can emit through the issuance of a limited number of tradable CO_2 allowances. This approach allows market forces to determine the most economic means of reducing emissions and creates market certainty needed to drive long-term investments in clean energy.

RGGI Quick Facts

Ten Participating States: CT, DE, MA, MD, ME, NH, NJ, NY, RI, VT

Coverage: Fossil fuel-fired power plants 25 megawatts or greater in size (currently 209 facilities region-wide)

Initial CO_2 Emissions Cap: 188 million short tons per year for the 10-state region

Timing of CO_2 Reductions: 2009-2014, cap stabilizes emissions at 188 million tons annually; 2015-2018, cap declines by 2.5 percent per year for total reduction of 10 percent

CO_2 Allowance Auctions: Regional, held quarterly, open to all who qualify

Compliance Period: Three years, first compliance period January 1, 2009 – December 31, 2011

CO_2 Emission Offsets: Qualifying GHG reduction projects outside the electricity sector. Currently, power plants may use offsets to meet 3.3 percent of their compliance obligation (limit on use increases to 5–10 percent of compliance obligation under specified conditions)

Auction Proceeds: Overall, 80% invested in consumer benefit programs, including energy efficiency, renewable energy, direct energy bill assistance and other greenhouse gas reduction programs

RGGI lays the foundation for a North American carbon market.
The RGGI program has created the infrastructure for a market-based approach to regulating CO_2 emissions with strong market oversight. The RGGI emissions allowance tracking system and independent market monitor reports allow the public to view, customize and download reports of CO_2 allowance market activity and RGGI program data.

RGGI re-invests in the clean energy economy. The RGGI participating states have each chosen to auction nearly all CO_2 allowances and to invest proceeds in consumer benefit programs to build a clean energy economy. Overall, participating states are investing more than 60 percent of RGGI auction proceeds in programs to improve end-use energy efficiency and accelerate the deployment of renewable energy technologies. These investments reduce greenhouse gas emissions and generate important consumer benefits, including lower energy bills, greater electric system reliability, and more jobs.

RGGI provides a model for other programs to reduce CO_2 emissions. RGGI demonstrates that programs to reduce CO_2 emissions can benefit both the environment and the economy. Innovative aspects of RGGI, including allowance auctions and strategic reinvestment of auction proceeds, are influencing the development of other cap-and trade programs, including the

Western Climate Initiative (WCI) and the Midwest Governors Greenhouse Gas Reduction Accord (MGGRA). The RGGI auctioned-based allocation approach and auction design has also influenced the direction of the European Union Emissions Trading Scheme for CO_2 (EU-ETS).

- **Why do the RGGI states auction CO_2 allowances?**
  Auctioning CO_2 allowances ensures that all parties have access to CO_2 allowances under uniform terms. At the same time, auctioning allowances, rather than distributing them for free, realizes the value of the CO_2 allowances for reinvestment in strategic energy programs that save consumers money and create jobs.

- **What is the RGGI cap?**
  The RGGI cap is the total number of CO_2 allowances issued by participating states, and establishes a regional budget for CO_2 emissions from the power sector. From 2009 to 2014, the RGGI cap is 188 million short tons of CO_2 per year. Beginning in 2015, the cap will decrease by 2.5 percent per year, for a total reduction of 10 percent by 2018.

- **Will RGGI affect retail electricity prices?**
  The cost of CO_2 emissions allowances is a very small part of overall electricity bills. On average, the cap on CO_2 emissions accounts for 0.4 to 1% of average residential electricity bills, depending on the state. Based on typical household electricity usage, that translates into 73 cents per month for residential consumers. This very small increase is offset by strategic reinvestment of CO_2 allowance proceeds in energy efficiency measures which reduce demand for electricity and give households and businesses control over their energy bills.

- **How can market participants obtain CO_2 allowances?**
  Market participants can obtain CO_2 allowances in quarterly CO_2 allowance auctions or through various secondary markets, including the Chicago Climate Futures Exchange (CCFE) and the Green Exchange.

- **How do power plants comply with RGGI?**
  RGGI compliance occurs in three-year control periods. At the end of each control period, each regulated power plant must submit one CO_2 allowance for each ton of CO_2 emitted over the preceding three years. The first control period began on January 1, 2009, and extends through December 31, 2011.

- **What role do offsets play in RGGI?**
  An *offset* represents project-based greenhouse gas emissions reductions or carbon sequestration achieved outside of the capped electricity sector. Offsets provide compliance flexibility for regulated power plants, and create significant environmental and economic co-benefits for offset project sponsors (such as landfill operators or farmers). RGGI participating states currently allow regulated power plants to use a carefully chosen group of qualifying offsets to meet up to 3.3 percent of their CO_2 compliance obligation. Examples of eligible offset project categories include projects that capture or destroy methane from landfills or through agricultural manure management operations. Both of these projects reduce emissions of the potent greenhouse gas methane.

- **To learn more about how RGGI works and how states are investing in the clean energy economy visit the RGGI website at: http://www.rggi.org**

Executive Summary
NH Greenhouse Gas Emissions Reduction Fund (GHGERF)
Year 1 (July 2009 – June 2010) Evaluation

Matt Magnusson and Cameron Wake, Carbon Solutions New England, UNH

This report provides an evaluation of the first year of GHGERF funded grants for the period July 15, 2009 through June 30, 2010. Between July 15, 2009 and October 21st, 2009, the GHGERF awarded $17.7 million to 30 grants (19 grants had a duration of 1 year or less; 11 grants had a duration of 1 to 2 years) with an average award amount of just under $600,000. These grants went to a wide variety of activities with approximately 80% of funds going to activities that directly reduce energy use.

During the *first year reporting period*, the GHGERF grants reduced energy use by 40,500 million BTU, saved NH residents and businesses $1.5 million in energy costs, and reduced CO_2 emissions by 4,600 metric tons (Table 1).

Projects completed during the first year reporting period and completed or scheduled to be completed during the *second reporting period* (July 2010 to June 2011) will result in annual energy savings of $4.2 million in energy costs and CO_2 emissions reductions of 13,200 metric tons (Table 2).

Lifetime savings due to grants funded by the $17.7 million awarded through GHGERF are $60.6 million in energy costs (at current energy prices) and CO_2 emissions reductions of almost 200,000 metric tons (Table 3).

Table 1: Actual energy reductions measured during first year reporting period (July 2009 to June 2010)

Fuel Type	Energy Reduced	MMBTU Reduced	Equivalent Annual NH Household Use	Energy Savings ($ millions)	CO2 reduced (metric tons)
Electric	7.5 million (kWh)	25,700	1,100	$1.2	3,700
Oil	54.5 thousand (gallons)	7,600	85	$0.1	550
Natural Gas	50.0 thousand (therms)	5,200	65	$0.1	270
Propane	21.5 thousand (gallons)	2,000	65	$0.1	120
Total		**40,500**	**1,315**	**$1.5**	**4,600**

Table 2: Projected energy savings for second reporting period (July 2010 to June 2011)

Fuel Type	Energy Reduced	MMBTU	Equivalent Annual NH Household Use	Energy Savings ($ millions)	CO2 reduced (metric tons)
Electric	18.5 million (kWh)	63,100	2,650	$2.9	9,100
Oil	98.5 thousand (gallons)	13,700	155	$0.3	1,000
Natural Gas	484 thousand (therms)	49,700	620	$0.7	2,570
Propane	97 thousand (gallons)	8,900	300	$0.3	560
Total		**135,400**	**3,725**	**$4.2**	**13,230**

Table 3: Projected lifetime energy savings for all GHGERF projects funded in Year 1.

Fuel Type	Energy Reduced	MMBTU	Equivalent Annual NH Household Use	Energy Savings ($ millions)	CO2 reduced (metric tons)
Electric	253.5 million (kWh)	863,300	36,200	$39.50	124,740
Oil	1.7 million (gallons)	235,800	2,600	$4.40	17,300
Natural Gas	9.5 million (therms)	975,700	12,200	$13.20	50,400
Propane	1.3 million (gallons)	119,000	3,900	$3.50	7,480
Total		**2,193,800**	**54,900**	**$60.60**	**199,920**

GHGERF supported energy efficiency training opportunities for 170 workers over 5,600 contact hours. GHGERF also supported 436 building benchmarking and energy audit evaluations. These are essential first steps in training the workforce and identifying and developing cost-effective projects that directly reduce energy use.

While GHGERF funds were not intended for job creation, the GHGERF grants directly supported 55 full time equivalent (FTE) jobs with an estimated additional (indirect and induced) 15 to 30 FTE jobs being supported by the grants for a total job impact of 70 to 85 FTE jobs. In addition, low-interest loans helped improve the competitiveness of two manufacturers employing a total of more than 400 workers.

Additional Key findings:

- GHGERF funded a wide range of projects that covered many essential areas of programmatic need for enhanced energy efficiency in the state.
- Energy reduction projects were cost effective. Of the evaluated energy reduction projects there was an average net SAVINGS of $147 per metric ton of CO_2 reduced when considering both the cost of implementation and the cost savings resulting from reduced energy use. Put another way, each dollar invested by GHGERF resulted in $3.42 in direct energy savings.
- The first year was a learning and infrastructure development period. It took a few months for the grant recipients to develop capacity to deliver new energy efficiency services. However, over time the grant recipients have become increasingly sophisticated in providing energy efficiency services.
- Key benefits of GHGERF in the energy efficiency marketplace are its flexibility, its ability to encourage innovation, and its leadership and support towards reducing dependence on imported energy sources in the state.
- The program has generated excitement and innovation for enhancing energy efficiency and reducing energy use among a diverse cross-section of private and non-profit organizations across New Hampshire.
- There has been significant development of best practices for reducing energy use and reducing dependence on imported energy.
- Strong models and processes have emerged from the first year of implementation and these new models are specifically reflected in the second round of GHGERF grants awarded in December 2010. The new grant programs are far reaching and are expected to result in projects with significant energy and emissions reductions.