

**Climate Change Action Plan  
Government Leadership & Action (GLA) - Draft Action Report List and Summaries**

**New Hampshire Climate Change Policy Task Force  
Draft Action Report List and Summaries**

**Government Leadership and Action  
Working Group**

**Updated by NHDES  
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*Draft - For Discussion Purposes Only*

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**GLA Action 1.1 State Leading by Example - Establishment of an Energy Consumption and Green House Gas Emission Baseline for State Government**

**Summary**

The state should establish the baseline for energy consumption and green house gas emissions for state government for the year 2005. This baseline would provide a benchmark to compare energy savings and green house gas reductions from the actions taken by the state to combat global warming.

**GLA Action 1.2 State Leading by Example - Establishment of an Energy Management Unit**

**Summary**

The State should establish an Energy Management Unit (location to be determined) in order to implement and to oversee the recommendations of the Climate Change Task Force, as well as, the Governor's Energy Efficiency Initiative. This unit would be responsible for tracking state government efforts to reduce energy use and cost, reduce greenhouse gases, achieve state energy reduction/climate change goals, and to provide assistance on energy efficiency to local and regional government entities. The proposed Energy Management Unit would consist of four new positions: a project manager, a data manager, a fleet manager, and an energy education and outreach specialist.

**GLA Action 1.3 State Leading by Example - Establish self-sustaining fund for energy efficiency projects in state government**

**Summary**

This action item would establish a non-lapsing fund, under the oversight of the Director of Plant & Property and State Energy Manager, from which state agencies could request monies to fund energy efficiency projects. The state will finance this operating fund with monies that are equal to 2% of each agency's utility budget from the previous year. This fund would be allocated proportionally to subsidize requested energy efficiency projects proven to reduce their energy consumption.

Making energy efficiency projects financially possible will encourage agencies to creatively determine ways in which they can conserve energy and ultimately use less energy and lower their utility bills. By charging one agency, Plant & Property, to oversee the distribution of these funds, small or large agencies will benefit accordingly.

**GLA Action 1.4 - Provide for the Establishment of Local Energy Commissions**

**Summary**

In March 2007, 164 towns in NH passed a historic Climate Resolution that called on state legislators, the NH congressional delegation and presidential candidates to address climate change. The resolution also called for the establishment of local energy committees to address the greenhouse gas emissions associated with the municipalities' activities. Since that time nearly 100 towns have established a Local Energy Committee (LEC).

The State of New Hampshire can support this groundswell of civic action by:

- providing for the establishment of formal Energy Commissions within their town, with specific authorities granted to them, and

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- support the capabilities of regional planning commissions and state agencies to assist towns in inventorying their energy use and GHG emissions and implementing GHG reduction plans

**GLA Action 1.5 – Include Climate Change Adaptation and Mitigation in Programs and Planning**

**Summary**

The State should adopt a policy that requires climate change adaptation and mitigation to be incorporated by each State agency in all of their planning and programmatic activities. Climate change has impacts that could affect the entire spectrum of activities (e.g., economic, recreational, agricultural) that are conducted within the state and the vast majority of activities in New contribute to the causes of climate change as well. As the State has the capacity to influence all these activities, whether governmental, commercial, residential or industrial, it should explicitly incorporate climate change as a critical issue to be dealt with in all State planning and programming

**GLA Action 2.1 Reduce Energy Use in Government Buildings - New Construction and Renovation: State Defined High Performance Public Building Standards/LEED Rating**

**Summary**

Current state policy requires that new construction and major renovations of all state building projects exceed existing State Energy Code by 20%. This satisfies the mid-level criteria for Leadership in Energy and Environmental Design (LEED) – Energy & Atmosphere Section. Past projects have shown that a more stringent level of efficiency may be in order. As both codes and LEED criteria are changing quite frequently an alternate solution may be to set targets of total energy usage in buildings on a Kbtu/sq/ft/yr basis. These numbers also vary considerably by building type so the goals should be set by building type as well. An immediate target of 30% more efficient than code should be set. Furthermore this requirement should be extended to all building projects receiving state funding (e.g., state facilities with the possible exception of local schools).

The state should set additional targets as follows: 1.) mandate that by 2015, all construction now following the policy must be designed to exceed code by 40% or reduce Kbtu /sq ft by a similar amount; 2.) by 2025, all construction must receive LEED silver certification through the U.S. Green Buildings Council (USGBC) or reduce load by 50% on a Kbtu basis whichever is more stringent. To achieve these goals, the state should provide education and outreach to towns, the NH Department of Education, and others, so that they become familiar with these standards as well as benefits. In the case of schools it would be more effective to increase the state CHPS bonus from 3% to 5% to entice schools to participate rather than use a mandate.

**GLA Action 2.2.1 Bring Existing Government Buildings up to an Energy Star Rating**

**Summary**

The state should examine its existing stock of buildings, benchmark the buildings, and determine which can be considered Energy Star efficient or better. A plan and schedule should be developed for doing audits on the remaining stock and bringing them up to Energy Star efficiency or better.

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**GLA Action 2.2.2 - Re-Commission Existing Government Buildings to Reduce Energy Consumption**

**Summary**

Over time, routine maintenance may not be performed at an interval needed to keep existing building systems operating at optimum energy saving efficiency. The state should develop a policy of periodic re-commissioning to assure existing state facilities maintain optimum operating efficiency.

**GLA Action 2.2.3 – Require an Energy Star Rating for all Government Offices in Leased Space**

**Summary**

The state should develop a policy of leasing only Energy Star or better rated leased space. This would provide an incentive for private building owners to incorporate energy efficiency into their leased spaces. The state should require all landlords that sign *Gross Leases* with the state supply copies of utility bills to the occupying agencies for their review. This would ensure that reductions in energy use by state employees in leased space are being reflected in cost savings to the state.

**GLA Action 2.3 – State Appliance and Equipment Procurement Policies**

**Summary**

Current state policy requires all electronic equipment and appliances purchased (or leased) for use in state buildings to be Energy Star certified or better. This policy should be expanded and more widely implemented. This will result in energy savings and the reduction in Green House Gases.

**GLA Action 2.4 Reduce Energy Use in Government Buildings - Energy Reduction Measures for State Employees**

**Summary**

The state should establish and implement policies to reduce energy use by government employees relative to operation and maintenance of equipment. The policies should include, but not be limited to, measures related to 1) personal computers, laptops, speakers, monitors, copiers, and printers; 2) lighting and miscellaneous electrical equipment; 3) water conservation; and 4) waste/paper reduction.

**GLA Action 2.5 Reduce Energy Use in Government Buildings - Energy Reduction Measures for State Facilities**

**Summary**

The state should establish and implement policies to reduce energy use in state facilities relative to operation and maintenance of equipment and buildings. The policies should include, but not be limited to, measures related to 1) lighting and miscellaneous electrical equipment; 2) facilities management (e.g. thermostat settings, hot water settings); 3) water conservation; and 4) waste/paper reduction.

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**GLA Action 3.1 Encouraging Renewable Energy and Energy Efficiency Projects on Existing State-Owned Buildings and Facilities**

**Summary**

The State's building inventory, like the residential building inventory, is deficient when considering energy efficiency and low-resource use, such as water use, materials used and waste systems. However, this gives the State the opportunity to play a positive role by leading efforts to upgrade and modify state buildings and facilities. Building and facility upgrades-to maximize energy efficiency as a priority identified in earlier sections of this chapter-could involve creative and exciting examples while rolling in public outreach, education and job creation. If the State can then integrate projects that include renewable energy, like solar and wind projects, on appropriate existing buildings and facilities, then the State can effectively raise the floor of the existing State building and facility inventory by lowering energy consumption and the threat of global warming.

**GLA Action 3.2 - Increase Use of Renewable Energy Sources and Energy Efficient Technologies - Use of Renewables for Building Heat and Hot Water**

**Summary**

The state government should lead-by-example by establishing a policy that requires a certain portion of buildings' heat and hot water usage, whether in state-owned or leased facilities, to come from renewable energy sources. The State's building inventory, like the residential building inventory, is deficient when considering energy efficiency. However, this gives the State the opportunity to play a positive role by leading efforts to upgrade and modify the heat and hot water systems in state buildings and facilities. This policy may require retrofits to facilities that could include: bioheating oil, solar hot water heat, combined heat and power, ground source heat pumps, and biomass.

**GLA Action 4.1.1 - Increase Overall State Vehicle Fleet Efficiency**

**Summary**

The State should increase the overall fuel efficiency of the State fleet by requiring that all vehicles purchased for the NH State fleet be the best vehicle type for the intended purchase, and therefore "right-sized," and be the most fuel efficient vehicle available in its class for the year of acquisition. This policy will need to recognize that the most fuel efficient vehicles may have higher first costs but can, as in the case of high MPG hybrids, have much reduced operating costs over their useful life.

**GLA Action 4.1.2 Increase Use of Cleaner Fuels & Advanced Technologies**

**Summary**

A policy should be established that requires NH government to purchase vehicles with advanced technologies, such as new hybrid electric vehicles (HEV), plug-in hybrids (PHEV), advanced electric vehicles (EV), fuel cell vehicles (FCV) and vehicles capable of operating on alternative and renewable fuels such as ethanol, biodiesel, methanol, compressed natural gas, propane, hydrogen and electricity. Aside from the substantial clean air benefits, these fuels are also produced domestically, strengthening America's energy independence. Attention should be paid, however, to the life-cycle emissions of these newer technologies and fuels. Government agencies that own and operate vehicle fleets represent a small

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yet highly visible component of the transportation sector. The state will lead by example to motivate individual municipalities and their political subdivisions to establish similar vehicle purchase programs.

**GLA Action 4.2.1 Increase Clean (Low Carbon) Vehicles in State Fleet - Reduce Emissions from Existing Diesel Vehicles - Reduce Diesel Particulate Emissions through the Use of Retrofit Devices**

**Summary**

The government should lead by example by installing retrofit technologies on diesel trucks with a model year of 2006 and older or retire diesel trucks and replace with new technology and cleaner operating engines to achieve reductions of black carbon particulate matter (PM). Retrofit technologies should also be installed on diesel non-road equipment including construction equipment, diesel generators, and the like.

**GLA Action 4.2.2 Increase Clean (Low Carbon) Vehicles in State Fleet - Reduce Emissions from Existing Diesel Vehicles - Reduce Diesel Particulate Emissions in State Contracts**

**Summary**

State contracts for road and building construction projects should include funding for the installation of diesel retrofit equipment on vehicles and equipment in state contracts (e.g., roads, buildings) to reduce the black carbon content of diesel emissions. The program would require that all companies that participate in state contracts to retrofit the emissions control systems on their diesel vehicles. The program would target its funds to vehicles that meet criteria related to their age (i.e., remaining operational life) and hours of operation per year in order to affect the greatest reductions per dollar invested.

**GLA Action 4.2.3 Reduce Vehicle Emissions through Improved State Vehicle Maintenance**

**Summary**

The most fuel efficient vehicles achieve the greatest number of miles per gallon of fuel and in doing so reduce their greenhouse gas (GHG) emissions per trip. The state should maintain or improve the fuel economy of the *existing* state fleet by actively expanding the use of maintenance options that directly contribute to improved fuel economy such as the use of low rolling resistance replacement tires and low friction engine oil.

**GLA Action 5.1.1 Reduce Fuel Consumption by State Vehicles - Driver Behavior in State Vehicles - Implement a State Vehicle Idling Policy**

**Summary**

The State should lead-by-example by reducing emissions from existing state motor vehicles by developing and implementing a no-idling policy. Light and heavy-duty vehicle idling wastes fuel, damages engines, and results in excess greenhouse gas (GHG) and criteria air pollutant emissions. An Argonne National Laboratory report estimated that more than 13 million light- and medium-duty trucks use more than 600 million gallons per year of fuel (gasoline and diesel) for idling<sup>1</sup>. Consumers and fleets have become accustomed to idling vehicles for a number of reasons; most drivers seem not to make the connection between idle time, increased emissions, and wasted fuel. For fleets, a good idle reduction policy is the first line of attack to save fuel and ensure vehicles are idling only when necessary. Another

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step is to consider the technologies available for idle reduction for light- and medium-duty vehicles, such as coolant heaters, air heaters, and energy recovery systems<sup>2</sup>.

**GLA Action 5.1.2 Reduce Fuel Consumption by State Vehicles - Driver Behavior in State Vehicles - Implement Improved Driver Habits**

**Summary**

The government should lead-by-example in reducing emissions from existing state motor vehicles by developing and implementing a policy to improve driver habits in order to increase fuel economy and save money on gas. State employees and contractors should be educated on the practice called "hypermiling." Hypermiling entails avoiding aggressive driving, such as rapid acceleration and sudden braking, observing the speed limit, consolidating and planning trips, avoiding drag by keeping windows closed, not idling, removing excess cargo weight, using cruise control, and not using air conditioning whenever feasible. While each vehicle reaches its optimal fuel economy at a different speed (or range of speeds), gas mileage usually decreases rapidly at speeds above 60 mph. Overlooking the above listed measures wastes copious amounts of fuel. Hypermiling techniques can lower gas mileage by 33 percent at highway speeds and by 5 percent around town, which is equivalent to \$0.19-\$1.23/gallon less fuel cost at a gas price of \$3.71. Sensible driving is also safer, so more than gas money may be saved<sup>1</sup>.

**GLA Action 5.2 Reduce Fuel Consumption by State Vehicles - State Business Related Travel**

**Summary**

The State governments should take strides to reduce excessive travel. There are a variety of solutions for reducing or offsetting an organization's business-travel emissions. Seminars and meetings should be accomplished via telephone, video and web-conferencing when feasible. Business trips should be consolidated; several short trips taken from a cold start can use twice as much fuel as a longer multipurpose trip covering the same distance when the engine is warm. Routes should be planned according to the most efficient traffic flow and vehicles should be assigned based on the right-size for the intention of the trip and maximum fuel efficiency, rather than spreading miles evenly over all vehicle types. The policy should also encourage alternative/mass transportation for travel to and from conferences and meetings within the region. For distant travel needs, particularly by air, it may be appropriate for the state agencies to be required to purchase carbon offsets to compensate for the impact.

**GLA Action 5.3 Reduce Fuel Consumption by State Vehicles - State Office Locations**

**Summary**

The state should lead-by-example by making Smart Growth principles a priority when choosing state agency office locations whether it be for leasing or new construction. There is a growing concern that current development patterns -- dominated by "sprawl" -- in fact significantly increase energy usage and greenhouse gas (GHG) emissions. State agencies are often in locations that pull their patrons out of downtowns and into peripheral areas, thus, the state government is contributing to sprawl. Current state purchasing policy limits agencies to choosing lowest rent locations. Such locations tend to be outside established downtowns<sup>1</sup>. State agencies can help promote smart growth by selecting office locations in urban or village centers, utilizing existing structures, near or with alternative transit opportunities (e.g. bus, rideshare, bicycle or pedestrian routes), or in locations that minimize impact to the natural environment. The state should maximize the walkability of all future state office buildings, whether

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constructed or leased, by siting spaces in a manner that is consistent with Smart Growth principles and locates state workers in close proximity to existing community centers and transit facilities. Proper regional planning can reduce the need for vehicle use by making areas of development more compact.

**GLA Action 6.1 Reduce Fuel Consumption by State Employee Vehicles - Employee Travel Reductions**

**Summary**

The state should lead by example by instituting policies that enable more widespread use of strategies that reduce travel by employees, such as telecommuting and allowing alternative work schedules. Commute trip reduction (CTR) programs use a variety of strategies to incentivize the use of commute and work options that contribute less to climate change. Alternative start-end times may help employees better coordinate with transit or car-pool schedules and minimize traffic during peak commuting hours. Compressed work weeks – e.g., four 10-hour days, or nine 9-hour days – could eliminate one-trip per week to the office. This initiative will enable state employees to reduce the number of vehicle miles traveled (VMT) and the amount of fuel consumed.

**GLA Action 6.2 Reduce Fuel Consumption by State Employee Vehicles - Satellite Offices**

**Summary**

The state should lead-by-example in instituting policies that maximize the use of the state's satellite offices to reduce the number of miles that state employees drive to work each day.

**GLA Action 6.3 Reduce Fuel Consumption by State Employee Vehicles - State Employee Rideshare**

**Summary**

The state should lead-by-example in marketing their Rideshare program to employees, increasing the number of state workers participating in car and vanpools. State agencies should offer, along with the NH Rideshare program, the Guaranteed Ride Home benefit, which provides a free taxi cab ride home in the case of an emergency on a day that an employee used a commute alternative such as carpooling. Today's commuting society significantly impacts environmental quality, economic vitality, productivity, and quality of life. Weekly fuel use can be reduced by more than half if commuters are driving together. Many urban areas allow vehicles with multiple passengers to use special High Occupancy Vehicle (HOV) lanes, in order to avoid idling in traffic. The New Hampshire Department of Transportation is working with the New Hampshire Regional Planning Commissions and employers to encourage ridesharing and implement a statewide ridesharing system. That system now includes 25 Park and Ride lots maintained for commuters by the Department of Transportation, with future locations planned.

**GLA Action 6.4 Reduce Fuel Consumption by State Employee Vehicles - Parking Incentives**

**Summary**

The state should lead-by-example in creating a series of incentives that promote greater VMT reduction or greater fuel economy by providing preferential parking and parking cash out to employees that choose to carpool and drive fuel efficient, low emission vehicles.