

Recommendation 2: Greenhouse Gas Emission Targets

It is recommended that the Florida Legislature adopt long-term reduction targets for GHG emissions. The initial targets should be as follows: by 2020 to reach 2000 emission levels; by 2030 to reach 1990 emission levels; and by 2050 reduce emissions to 80 % below 1990 levels. These GHG emission targets will be subject to sunset review in 2013, which would require the FEC and the Legislature to reassess the relevant concepts, science, economics, and policies. The FEC would also be required to provide an annual assessment report. These initial emissions targets are intended to provide guidance in the state's long-term response to global warming, and as such, do not specify or require implementing policies. Specific policies to achieve reductions in GHG emissions should be developed through the FEC utilizing a consensus-based, stakeholder-driven process.

BACKGROUND INFORMATION:

Several thousand scientists worked together on the Intergovernmental Panel on Climate Change to review the exhaustive evidence of global warming and describe the plausible range of outcomes. They agree that global warming caused by greenhouse gas emissions from human activities represents a profoundly serious threat to civilization and to the most robust and insulated natural ecosystems.

Carbon (CO₂) makes up the overwhelming majority of greenhouse gases. The second most prominent GHG is methane (CH₄), which is emitted in far lower quantities, but is more potent than CO₂. The other commonly recognized GHGs are nitrous oxide (NO₂), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Our state ranks 5th nationally in the amount of energy consumed per capita and 3rd in total energy consumption. Almost 1,000 people move to our state every day. To do nothing about GHG emissions is to leave the next generation of Floridians with the task of dealing with this issue that threatens their world. The cost to adapt and remedy these problems likely will be much higher for our future generations than if Florida begins to mitigate GHG releases today.

This recommendation directs the FEC to study Florida's economic, political and environmental conditions, and to make recommendations as the science of climate change and technical options evolve. Targets for emissions reductions are usually phased in over a determined number of years at specific reduction levels. Targets are based on levels that are necessary to achieve stabilization of the GHGs at some certain point. For example, the Committee on the Environment and Northeast International Committee on Energy of the Conference of New England Governors and Eastern Canadian Premiers created a long-term goal of a 75-85% reduction thought to be required to stabilize GHG global levels at twice their preindustrial levels.

The two most prominent market based greenhouse-gas reduction strategies are the cap-and-trade structure and the carbon-fee structure. Each strategy requires a central entity to place a monetary value on carbon emissions; however a cap-and-trade approach also limits the total amount of carbon that can be emitted, resulting in a carbon market and a

carbon market price that rises and falls based on the available units and the demand for those units. A carbon fee places a set price on a limitless amount of carbon emissions.

The U.S. acid rain crisis in the 1990's led to a cap-and-trade program for sulfur dioxide (SO₂) emissions. As a result, SO₂ emissions were drastically reduced. Cap-and-trade proponents believe the same would result if a market price were applied to carbon within a cap-and-trade approach. Proponents of carbon fees claim that a fee system will require far less complex administrative systems.

Recommendation 3: Greenhouse Gas Registry and Inventory

It is recommended that the Florida Legislature support Florida's participation in "The Climate Registry", which Florida joined as a founding member in May 2007; that the Legislature direct the Department of Environmental Protection to maintain a greenhouse gas registry and inventory; that reporting to the DEP be required for state government and utilities; that reporting be optional for county governments and other businesses; that DEP seek ways to assist local governments, counties, and businesses to participate in the registry and inventory; and that the Legislature provide statutory and budgetary support to the Department of Environmental Protection to implement these functions. The DEP will adopt methodologies for the recording and monitoring of emissions of greenhouse gases and to maintain a ledger to record future reductions in emissions.

BACKGROUND INFORMATION:

Inventory, reporting, and registry systems are necessary tools for the implementation of greenhouse reduction plans because they support the State's action plan, targets, and regional leadership role.

Before being able to reduce GHGs, it is axiomatic that the sources and amounts must first be identified. Tracking and reporting of GHGs will be the basis for the construction of state GHG inventories. It is a precursor for sources to participate in voluntary or mandatory programs, opportunities for recognition, emission reduction registries, and to secure baseline numbers. In addition to identifying reduction opportunities, measuring and reporting can reduce risks associated with possible future GHG mandates. An accurate inventory, therefore, is critical to ensure that decisions are based on real emissions and emission reductions.

In developing reporting requirements, DEP should make every effort to build upon the considerable work already done on reporting structures, issues, protocols, and methodologies in order to maximize consistency and reciprocity with other jurisdictions' reporting programs. In doing so, Florida could influence GHG reporting practices in the Southeast region as well as the rest of the nation.

Any registry developed should provide guidance to help participants, provide appropriate transparency, and include a "transaction ledger" that has the capacity to support tracking, management, ownership, and exchange of emissions reductions.

The Governor in Executive Order 07-126, requires each agency under his direction to conduct an immediate assessment of energy used by their facilities during the last fiscal year. The agencies are to quantify the associated greenhouse gas emissions using the GHG Protocol Corporate Standard templates as developed by the World Business for Sustainable Development. Baseline figures are to be posted on the Florida Governmental Carbon Score Card and updated quarterly.

Recommendation 4: State Government Leadership Programs

It is recommended that the Florida Legislature adopt statutory “Lead by Example” initiatives to help state, county and local government save on energy costs while promoting energy efficiency and clean energy technologies to the public and private sectors. This will include that all new state government buildings be built in compliance with LEED, Green Globes, or any other nationally recognized and verified standard. State buildings will be required to be operated in an energy efficient manner using policies that would be proposed by the FEC and implemented by the FEO and other state agencies.

BACKGROUND INFORMATION:

State leadership programs help state and local governments save substantially on energy costs while promoting energy efficiency to the public and private sectors by using available clean energy technology to construct and operate buildings.

Florida has taken strides toward forming an energy policy over the last two years. In 2006, the Legislature created the Florida Energy Commission. The 2007 Florida Legislature supported HB 7123, similar to this recommendation in that it promoted adopting LEED standards for constructing new state-owned buildings, renovating existing state-owned buildings, and enhancing state-building energy efficiency. Among other things, HB 7123 also prohibited constructing state-owned buildings without life-cycle cost analysis based on sustainable building rates, and established guidelines for deferred-payment options as incentives to assist in absorbing the cost of energy-efficient building materials or upgrades.

Likewise, the Green Building Initiative, a 501(c) 3 not for profit corporation, was founded in 2005 to accelerate green building practices by introducing credible and affordable green building design and assessment tools for commercial and residential buildings. The GBI promotes a commercial building rating system called Green Globes and the Model Green Home Building Guidelines assessment tool for residential builders which was created and maintained by the National Association of Home Builders.

The same year, Gov Crist raised the bar by filing Executive Order 07-126, which goes farther by requiring agencies under his direction, and encouraging all other agencies, to take immediate steps in the areas of procurement, facilities and fleet maintenance to reduce greenhouse gas emissions. The order places much of the related administrative functions in the Department of Management Services.

Arizona recently passed legislation instituting state-leadership policies. Its policy directs agencies and universities to reduce energy use per unit of floor area by 10 percent by 2008, and again by 15 percent by 2011. It also requires them to purchase EnergyStar or Federal Energy Management Program-designated energy-efficient products and to meet conservation standards developed by the Arizona Department of Commerce’s Energy Office.

Arizona also allows school districts to establish energy efficiency funds with monies deposited by utilities, and to use the funds to buy energy-efficient products and services. Schools then could use utility bill savings to repay the capital costs of energy efficiency measures. The bill also allows schools to retain up to 20 percent of savings as an incentive, and to use the remainder of savings to pay loan installments. At the end of the loan term, the school then retains 100 percent of the savings.

Recommendation 5:
The Florida Green Business Certification Program

It is recommended that the Florida Legislature instruct the FEC to create a Green Business Program. This program should be coordinated with similar programs already available through other state agencies. It should create criteria for a business of any kind to be recognized and rewarded for adopting sound energy use and environmental practices, including reporting its carbon footprint and taking measures to reduce it. A business would achieve a graded award depending on the level of carbon emissions reductions that has been achieved. This program should provide plaques and window displays when a business has qualified for certification.

BACKGROUND INFORMATION:

“Going green” has become a moral issue for many consumers who would rather patronize businesses they perceive to be environmentally conscious. Florida has already addressed this in the lodging industry, and this recommendation would offer this program to other industries.

Since 2004, The Florida Department of Environmental Protection has recognized environmentally conscious lodging facilities with the “Green Lodging Designation.” The program is voluntary and recognizes lodging facilities that demonstrate water and energy conservation, waste minimization, recycling, indoor air quality, environmentally friendly purchasing, program sustainability and pollution prevention. Hotels and motels implementing “green” practices not only save money, but also generate good publicity while helping to protect the environment. The principles of this program transfer to many other industries.

Recommendation 6:
The Florida Climate and Energy Finance Fund

It is recommended that the Florida Legislature establish the “Florida Climate and Energy Finance Fund” to finance the investment in new energy-related projects in the state that have a lifecycle value that is positive. The fund should be available to both public and private sector projects. The Fund would be financed by a State bond fund and operated by the Florida CFO, whose managers assess the financial viability and energy performance of applications for financing. Projects qualifying to receive financing from the Fund should result in a net financial savings due to overall decreased energy costs. This is not recommended to be a deficit fund, but rather a fund that is debt-financed, that collects returns, and that can reinvest those funds in economic projects. As such there should be no net taxpayer funding.

Among other uses, this fund could be used for financing for commercial building projects (new, renovated or remodeled space) that build above current building code standards resulting in energy consumption per unit floor area of at least 10 percent less than it would be if the project merely met the existing code standards.

BACKGROUND INFORMATION:

Florida, like many other states, provides incentives and grants for energy related projects. There are always issues of availability of public funds for such purposes and whether the State should receive a return on a project should it become viable and profit making.

This recommendation addresses that situation by creating a funding mechanism that once initial “seed money” is provided, in this case by state bonds, the fund can collect a return on its investment and continue to finance new projects.

A popular method of supporting energy projects has been the use of so-called public benefit funds. Almost half of the states have established one. Monies to support such type of fund normally come from a small charge on the customers’ utility bill or from the utilities. A public benefits fund does differ from the funding mechanism being recommended in that customers usually are the source for the money and the assessment is, for the most part, permanent. Nor do such funds seek a return on its investment which would then be used to fund new projects.

Recommendation 7:
Government Vehicle Practices and Renewable Fuels

It is recommended that the Florida Legislature require State agencies to assess their transportation-related energy use, including fleet fuel analysis of automobiles and light trucks by class; and require all agencies to perform scheduled vehicle maintenance (such as assuring appropriate tire pressures and tread; replacing fuel and emission filters at recommended intervals; changing motor oil; and performing timely vehicle tune-ups).

The Legislature can require the Department of Management Services to measure and report compliance through the Equipment Management Information System database and to report annually; require agencies to use ethanol and biodiesel when locally available, and take steps to encourage the feasibility of developing renewable fuel vehicle fueling facilities for government and private sector vehicles.

BACKGROUND INFORMATION:

State government is Florida's largest employer, with 114,756 employees. State government occupies 16.8 million square feet of space and makes more than \$1 billion in annual commodity purchases. Small changes at this level have the potential to make large differences.

In itself, this recommendation works as part of a "state leadership" incentive, and as a stand alone recommendation to make the vehicles paid for by state citizens work in the best interests of their environment and health.

Governor Crist's Executive Order 07-126 addresses this, and orders all state agencies under his direction to assess transportation energy use utilizing a report that analyzes average fuel economy levels of the agencies automobiles and light trucks by class. The orders require the results of this baseline assessment to be posted on Florida's Governmental Carbon Scorecard, by agency, by October 1, 2007 and updated quarterly.

Many versions of government-fleet efficiency policies are in use in many states. Authority is needed. As a motivator, part of the revenue stream from enforcement could be allocated to the enforcing agency's budget.

Recommendation 8: Vehicle Idling Rules

It is recommended that the Florida Legislature direct the State to create standards for responsible vehicle idling in order to minimize fuel waste, air pollution, and greenhouse gas release by cars and trucks. The State will also conduct a study that will include the feasibility of providing back-up power for commercial trucks at Florida's truck stops in order to minimize idling at these locations.

BACKGROUND INFORMATION:

Reducing idling by diesel and gasoline engines reduces emissions of GHGs and other toxic chemicals, and results in fuel savings.

Enforcing idling limits also presents specific issues. In Arizona, the policy was difficult to enforce due to a lack of enforcement funding and authority. In order to properly enforce idling limits, a dedicated funding stream and an agency with proper enforcement authority are needed. As a motivator, part of the revenue stream from enforcement could be allocated to the enforcing agency's budget. Overall weather conditions, especially summer temperatures in Florida, also raise concerns regarding overall comfort as well as safety and health.

Gov. Crist orders the Secretary of Environmental Protection to adopt a diesel vehicle idling reduction standard in the 2007 Executive Order 07-127. This recommendation goes a step further by addressing both diesel and gasoline engines.

Various versions of idling restrictions currently exist in more than 30 states. Implementation methods include information and education, technical assistance, codes and standards, pilots, reporting and enforcement. Time limits range from as little as three minutes to as long as fifteen minutes or longer.

Recommendation 9:
Methane Capture from Landfills and Wastewater Treatment Plants

It is recommended that the Florida Legislature establish programs that will encourage and provide incentives for the deployment of technology to allow for the capture or combustion of fugitive methane from landfills and wastewater treatment plants, in order to keep methane from entering the atmosphere. These programs should encourage the creation of multi-county regional solutions to accomplish this goal. Counties should seriously investigate their participation in methane capture programs.

BACKGROUND INFORMATION:

Landfills are the largest anthropogenic source of methane emissions in the United States. Landfill gas, primarily methane (CH₄) and carbon dioxide (CO₂), is produced as a result of the normal decomposition of organic waste in an anaerobic (without oxygen) environment. Most landfill gas is emitted directly to the atmosphere. However, at some landfills the gas is recovered and either burned off (flared) or used as an energy source.

The same anaerobic decomposition process occurs at wastewater treatment plants. Many US states and Florida counties are already capturing and transmitting methane from landfills and wastewater treatment plants. The Florida Department of Environmental Protection has already prepared a landfill methane inventory.

This type of mitigation project can be expensive. In Jacksonville, JEA spent \$10 million to capture methane from one of its facilities. However, methane capture qualifies for carbon credits in some carbon exchange markets, such as the Chicago Climate Exchange, which can offset some of the costs of methane mitigation.

Recommendation 10:
Methane Leaks from Oil and Gas Facilities

It is recommended that the Florida Legislature adopt a program that will offer incentives for technology or equipment upgrades, such as low-emission regulator valves, to reduce or eliminate equipment venting or fugitive emissions of methane from Florida's oil or gas facilities.

BACKGROUND INFORMATION:

Natural gas consists primarily of methane, a potent greenhouse gas, so any leaks during production, processing or transportation should be addressed. There can be an economical benefit from preventing the waste of methane. Advanced technologies, best management practices and simple leakage reduction opportunities could stop much of the leakage if the incentives encouraged such efforts.

The Federal Energy Regulatory Commission, or FERC, is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. Because FERC also reviews proposals to build liquefied natural gas terminals and interstate natural gas pipelines, it has excellent documentation of the economic significance of methane leaks.