



Governor’s Action Team on Energy and Climate Change

State of Florida

Catalog of State Actions Government Policy (GP) Work Group

A catalog of state-level, GHG-reducing actions and policy options based on actions undertaken or considered by state, local, and private actors.

Key to Future Rankings of Options in the Following Table

Potential GHG Emission Reductions*	Potential Cost or Cost Savings* [†]
High (H): At least 1.0 million metric tons of carbon dioxide equivalents (MMtCO ₂ e) per year by 2020	High (H): \$50 per MtCO ₂ e or above
Medium (M): From 0.1 to 1.0 MMtCO ₂ e per year by 2020	Medium (M): \$5–\$50/tCO ₂ e
Low (L): Less than 0.1 MMtCO ₂ e per year by 2020, or 1 MMtCO ₂ e by 2050	Low (L): Less than \$5/tCO ₂ e
Uncertain (U): Not able to estimate at this time	Negative (Neg): Net cost savings
	Uncertain (U): Not able to estimate at this time

* Several measures may overlap in terms of emissions reductions and/or cost impacts. Estimates assume measures would be implemented independently from other measures.

[†] Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.

Definition of “Priorities for Analysis”:

- **High:** High priority options will be analyzed first.
- **Medium:** Medium priority options will be analyzed next, time and resources permitting.
- **Low:** Low priority options will be analyzed last, time and resources permitting.

Important Note: The GHG Reduction Policy Options below are numbered solely for convenience in referencing them. Their numbers do NOT reflect a ranking or prioritization of the policy options.

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
1	Inventories, Reporting and Registries					
1.1 [1.2, 1.3, 1.4, 1.5, 1.6]	Establish and fund mandatory GHG emission reporting, inventory and forecasting functions at state agency; participate in The Climate Registry, provide technical assistance to reporters and encourage participation.	1-H 1-L 1-M	1-H 1-L 1-N 1-M			The Division of Air Resource Management within FDEP has established, within its current funding mechanisms, a GHG emissions inventory function.
1.2.	Establish and maintain GHG emission forecasting function [incorporated into 1.1]	1-H 2-L	1-H 1-L 1-N 1-M			The GHG emissions inventory work within FDEP's Division of Air Resources has begun to establish and maintain emission forecasting of general trends based on 10 years of emissions reporting, by accounting for growth and combined with utility and other major emitters' 10-year site plans.
1.3.	Establish or adopt a GHG emissions reporting program [incorporated into 1.1]	1-H 1-L 1-M	1-H 2-L 1-N			The State of Florida is a party to the National Climate Registry

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
1.4.	Participate in the development of a multi-state GHG emissions reduction registry [incorporated into 1.1]	1-H 1-L 1-M	1-H 1-L 1-N 1-M			Some discussion of this has taken place on the Action Team and a recommendation was made to investigate Florida's participation in existing regional carbon credit trading mechanisms.
1.5.	Provide assistance in reporting and registering GHG emissions [incorporated into 1.1]	1-H 1-L 1-M	1-H 1-L 1-N 1-M			
1.6.	Recruit members for Registry statewide [incorporated into 1.1]	2-H 1-L	1-H 2-L 1-N			
1.7	Create "Environmental Attribute Registry" to certify GHG emission reductions, carbon credits, water pollution credits or other efforts within market-based environmental programs.	2-H 1-L	1-H 2-L 1-N			TWG addition.
2	Energy/Climate Government Policy Coordination					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
2.1	Establish goals or targets for statewide GHG emission reductions; review and revise on a periodic basis.	3-H 1-L	1-H 1-L 1-N 1-M			<p>Governor's Executive Order 07-126 established GHG reduction goals for state agencies of a 10% reduction from current emission levels by 2012, a 25% reduction from current levels by 2017 and a 40% reduction from current levels by 2025.</p> <p>Governor's Executive Order 07-128 established reduction goals to 2000 levels by 2017, to 1990 levels by 2025, and by 80% of 1990 levels by 2050. The Governor's order also required adoption of the California motor vehicle emission standards. The standard is a 22% reduction in vehicle emissions by 2012 and a 30% reduction by 2016.</p>

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
2.2	Institute an accountability program to measure and report progress in reducing GHG emissions.	3-H 1-L	1-H 1-L 1-N 1-M			The Executive Office of the Governor is tracking and reporting financial savings and emissions reductions associated with Executive Order 07-126 via the Florida Government Carbon Scorecard. Executive Order 07-128 direction: Policies for emission reporting and registry that measure and document emission reductions;
2.3	Participate in development of accountability programs in other states.	1-U 1-L 1-M	1-U 1-L 1-N 1-M			
2.4	Further examine the role of nuclear energy in addressing the state's goals of reducing greenhouse gases and pursuing energy security to include public outreach and engagement. This examination should address issues associated with the transport and storage of nuclear waste.	3-L 1-M	2-L 1-H 1-M			Action Team Recommendation from Phase I

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
2.5	Develop policies to reward early emission reductions in advance of statewide or national greenhouse gas regulatory programs.	2-M 1-L 1-H	1-M 1-L 1-N 1-H			Action Team Recommendation from Phase I
2.6	Other policies for efficiently reducing emissions in Florida in conjunction with, or independent of regional, national or international agreements.	3-H 1-M	1-H 1-L 1-N 1-M			<p><u>Recommendation:</u> The Action Team recommends further examination of the issue of statewide energy conservation and efficiency targets as a component of the facilitated process recommended for the second phase of the Action Team's work in 2008.</p> <p><u>Recommendation:</u> To build upon the 15% increase in energy performance of new construction by 2009 as directed by Governor Crist in Executive Order 07-127, the Action Team recommends stepwise improvements in building efficiency targets beyond 2009</p> <p><u>Recommendation:</u> The Action Team recommends further examination of all energy technologies with</p>

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
						low carbon emissions in addressing state's goals of reducing GHGs and pursuing energy security to include public outreach and engagement.
2.7	Development of an effective carbon credit system, allowing state government to purchase carbon credits associated with its own activities, function as a purveyor of credits to others, or act as a certification entity of private carbon exchanges.	2-H 1-L 1-M	2-H 1-L 1-N			
2.8	Climate-neutral bonding.	2-U 1-L	2-U 1-L			

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
2.9	Encourage and assist in the development of local government planning efforts to reduce greenhouse gas emissions, establish targets, etc.	3-H 1-M	1-H 1-L 1-N 1-M			<u>Recommendation:</u> The Action Team recommends incentives to assist municipalities, counties, and schools in the development of programs that achieve the Green Standards and designation or similar applicable standards, involve cost-efficient solutions, improve quality of life, and strengthen Florida's economy
2.10	Develop and Implement regional climate reduction initiatives.	2-H 1-M 1-L	1-H 1-L 1-N 1-M			TWG added "develop and"
2.11	Consider formation of a state climate data and analysis center to develop and provide objective, state-specific information regarding climate data.	2-L 1-M	2-L 1-N 1-M			Governor's Executive Order 07-128 direction: Focal point in government for Climate Change, programs consolidation

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
2.12	Identify opportunities for the state to join with other state or regional GHG reduction efforts.	3-H 1-L	1-H 1-L 1-N 1-L			<p><u>Phase I Action Team Recommendation:</u> In order to enable the sale of carbon credits from emission offset projects developed in Florida, the Action Team recommends that Florida pursue emission offset monitoring and verification programs and agreements including but not limited to a Memorandum of Understanding with RGGI.</p> <p><u>Phase I Action Team Recommendation:</u> The Action Team recommends further exploration of linkages to other emerging markets domestically and abroad as a feature of the market design process recommended for Phase 2</p>

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
2.13 [2.14, 2.15, 3.11]	Establish incentives or mandate programs for local governments to undertake inventories and GHG reduction programs for local government planning, facilities and operations; provide technical support to local governments to enable them to access federal funding for inventories and GHG reductions; work with local governments to establish a standardized methodology for emissions measurement and reporting, and fund software licenses.	2-M 1-L 1-H	2-M 2-L			TWG addition Action Team added “for local government facilities and operations”
2.14	Provide technical support to local governments to enable them to access federal funding for inventories and GHG reductions [Incorporated into 2.13]	2-M 1-L 1-H	2-M 2-L			TWG addition
2.15	Work with local governments to establish a standardized methodology for emissions measurement and reporting, and fund software licenses [Incorporated into 2.13]	2-M 1-L 1-H	1-M 3-L			TWG addition

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
2.16	State seek ways to claim carbon credits for individual actions pursuant to state incentives and use proceeds to further reward GHG reduction efforts by homeowners.	2-L 1-H 1-M	4-L			TWG addition
2.17	Offer incentive points for competitive state-to-local grant programs (FDOT, Regional Councils, Parks, etc.) for communities that have undertaken GHG-reduction programs.	2-L 1-H 1-M	4-L			TWG addition
2.18	Study and encourage governments to change the basis of measurement to incorporate GHG reduction as a priority (e.g., vehicle fleets: record and report VMT and MPG and estimate GHG emissions, rather than just MPG).	1-H 1-L 2-M	1-H 1-L 1-N 1-M			TWG addition
2.19	Diversified mass transportation planning between local, state and regional agencies.	3-H 1-L	1-H 3-L			TWG addition
2.20	Amend PSC Charge from “safe, affordable, reliable power” to include “facilitate transition to carbon-free generation as soon as possible.”	2-H 1-L 1-H 1-M	1-H 3-L			Action Team addition
3	Government Leadership by Example					

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
3.1	Lead by example by establishing targets for reductions in state GHG emissions.	2-M 1-H 1-L	2-M 2-L			<p>Governor's Executive Order 07-126 established GHG reduction goals for state agencies of a 10% reduction from current emission levels by 2012, a 25% reduction from current levels by 2017 and a 40% reduction from current levels by 2025.</p> <p><u>Phase I Action Team Recommendation:</u> To build upon the 15% increase in energy performance of new construction by 2009 as directed by Governor Crist in Executive Order 07-127, the Action Team recommended stepwise improvements in building efficiency targets beyond 2009.</p> <p>Executive Order 07-128 direction: 1. Additional greenhouse gas emission reduction strategies beyond those directed in EO 07-127, as well as an overall blueprint for development of actions;</p>

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
						<p>2. Policies to enhance energy efficiency and conservation, including statewide targets;</p> <p>3. Policies to reduce greenhouse gas emissions from state and local governments not addressed in EO 07-126</p>
3.2	Create a body to oversee on-going state, local and regional climate efforts.	<p>2-L</p> <p>1-M</p>	<p>3-L</p> <p>1-M</p>			<p><u>Phase I Action Team Recommendation:</u> The Action Team recommended the creation of a consortium effort among electric utilities, state government, and state universities to investigate and actively seek pilot projects on the feasibility of carbon capture, sequestration and storage within Florida.</p>
3.3	Disaggregate the State's own GHG emissions to the agency level and require annual agency-specific reports on GHG reduction progress.	<p>3-M</p> <p>1-L</p>	<p>1-M</p> <p>3-L</p>			

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
3.4	Institute an accountability program to measure and report progress in reducing GHG emissions.	2-M 1-L 1-H	1-M 3-L			The Executive Office of the Governor is tracking and reporting financial savings and emissions reductions associated with Executive Order 07-126 via the Florida Government Carbon Scorecard.
3.5	Require evaluation of GHG emissions in Environmental Impact Statements and similar environmental studies.	2-H 1-L 1-M	1-H 3-L			<u>Recommendation:</u> The Action Team recommends the development of life cycle analyses of transportation fuels and the use of those analyses to determine appropriate pathways to protect natural resources required for sustainability.

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
3.6	Review sources of renewable energy, including a study of renewables potential.	2-M 2-H	3-M 1-L			TWG added “including a study of renewable potential.” Extensive discussion of renewable energy sources has taken place on the Action Team. The Department of Agriculture and Consumer Services has implemented Farm to Fuel grants to promote renewable fuels. The Florida Energy Office at FDEP administers several grant and tax incentive programs for the promotion of renewable energy technology including solar and hydrogen fuel cell as well as many others.
3.7	Apply pollution prevention principles to GHG emission reductions.	1-U 1-L 1-M	1-U 3-L			
3.8	Promote Carpooling and use of public transit by State Employees.	3-M 1-L	1-M 3-L			TWG added “use of public transit”

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
3.9	Encourage and assist in the development of local government planning efforts to reduce greenhouse gas emissions, establish targets, etc.	3-H 1-L	1-H 3-L			Legislation filed.
3.10	Climate-neutral bonding.	2-U 1-L	2-U 1-L			
3.11.	Incentivize or require local government planning efforts to provide for GHG emission reductions, establish targets, etc. [Incorporated into 2.13]	2-H 1-L 1-M	1-H 2-L 1-M			
3.12	Introduce core competencies on climate change into professional licensing programs (e.g., energy efficiency in building design and construction, use of recycled materials, etc.)	1-H 2-L 1-M	1-H 3-L			
3.13	Examine state land acquisition strategies for sequestration or storage benefits.	3-H 1-L	2-H 2-L			

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
3.14	Lead by example by encouraging government agencies to share and implement policies and actions to reduce GHG emissions, improve our environment, and promote healthier lifestyles.	3-M 1-L	2-M 2-L			Committee addition. In July 2007, Governor Charlie Crist signed the “Leadership by Example” executive order. Florida’s state agencies have an opportunity to lead by example by establishing more sustainable choices in public service operations. The benefits of such institutional commitment include reduced operating and capital costs, reduced liability risks, increased employee productivity, greater health and well-being of employees, property value increase and greater environmental responsibility.
3.15	Conduct a comprehensive review of state policies with respect to public investments and land use changes (high school sites require huge footprint, highway policies, etc.)	2-M 1-L 1-H	1-M 3-L			TWG addition

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
3.16	Create a property tax exemption for the value of energy efficiency improvements on properties.	2-H 2-M	1-H 2-L 1-M			TWG addition
3.17	Ban deforestation and disturbance of public lands by 2020.	3-H 1-L	1-H 2-L 1-N			TWG addition
3.18	Examine state agency programs that promote energy intensive activities (i.e., water pumping, desalinization).	1-H 1-L 2-M	1-H 2-L 1-M			TWG addition
3.19	Revise state food purchasing and production to reduce transportation emissions (for prisons, universities, etc.)	3-M 1-L	2-M 1-L 1-M			TWG addition
3.20	Renewable energy demonstration projects in state parks.	2-L 2-M	3-L 1-H			TWG addition
4	Greening Florida's Economy					
4.1	Promoting alternative, low carbon fuels and vehicles.	3-H 1-M	1-H 2-L 1-M			<u>Recommendation:</u> The Action Team recommended further examination of ways the state can support the public and private efforts to develop alternative fuels and technologies in Florida

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
4.2	Promoting alternative, low carbon technologies.	2-H 2-M	1-H 3-L			<u>Recommendation:</u> The Action Team recommended consideration of an organizational model that fosters greater public-private cooperation for the development of a low-carbon energy market in Florida.
4.3	Promoting a low carbon energy market.	2-H 2-M	1-H 3-L			<u>Recommendation:</u> The Action Team recommends that policies be developed which promote the use of low carbon vehicles.
4.4 [4.7, 4.8, 4.9]	Create or designate an entity to promote business development opportunities in climate protection including seeking or stimulating funding investments; institute a “business incubator” program to attract and support new business development relating to the new energy economy; state to offer incentive points for competitive state-to-business economic development grant programs for businesses that have undertaken GHG-reduction programs.	1-M 3-L	2-M 2-L			TWG added “or designate”

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
4.5. [4.6]	Promote development of a business-oriented entity to help promote and recognize business efforts to reduce GHG emissions; and implement a state program of voluntary business actions to reduce GHGs.	4-L	3-L 1-N			
4.6.	Implement a state program of voluntary business actions to reduce GHGs [Incorporated into 4.5]	3-M 1-L	1-M 2-L 1-N			
4.7.	Institute a “business incubator” program to attract and support new business development relating to the new energy economy. [Incorporated into 4.4]	2-M 2-L	2-M 1-L 1-N			The Florida Energy Office administers several statutorily-authorized and funded programs to provide grants and tax incentives for promotion of renewable energy technology businesses in the state including solar and hydrogen fuel cell as well as many others.

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
4.8.	<p>Seek and stimulate funding and investment in climate solutions.</p> <p>[Incorporated into 4.4]</p>	<p>2-H</p> <p>2-M</p>	<p>1-H</p> <p>2-M</p> <p>1-L</p>			<p><u>Phase I Action Team Recommendation:</u> The Action Team recommended further examination of ways the state can support the public and private efforts to develop alternative fuels and technologies in Florida.</p> <p><u>Phase I Action Team Recommendation:</u> The Action Team recommended consideration of an organizational model that fosters greater public-private cooperation for the development of a low-carbon energy market in Florida.</p> <p><u>Phase I Action Team Recommendation:</u> The Action Team recommended further examination of ways the state can support the public and private efforts to develop alternative fuels and technologies in Florida.</p>

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
4.9	Offer incentive points for competitive state-to-business economic development grant programs for businesses that have undertaken GHG-reduction programs [Incorporated into 4.4]	2-M 2-L	1-M 2-L 1-H			TWG addition
4.10	Create energy enterprise award through existing "Center of Excellence" program at universities.	1-M 2-L 1-U	1-M 2-L 1-U			Action Team addition
5	Education and Outreach					
5.1.	State Government Education and Outreach Actions The State should lead by example (i.e., walk the talk) regarding education and outreach.	3-M 1-L	2-M 1-L 1-N			<u>Recommendation:</u> The Action Team recommends further examination of all energy technologies with low carbon emissions in addressing state's goals of reducing GHGs and pursuing energy security to include public outreach and engagement.
5.2.	Target Audience: Policymakers (legislators, regulators, executive branch, agencies) Implementation of climate actions hinges on policymakers' approval.	1-H 1-L 1-N 1-M	1-H 2-L 1-N			

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
5.3.	<p>Target Audience: Future Generations</p> <p>Integrate climate change into educational curricula, post-secondary degree programs, and professional licensing.</p> <p>[Incorporated into 5.5]</p>	<p>1-M</p> <p>1-L</p> <p>2-H</p>	<p>1-M</p> <p>2-L</p> <p>1-N</p>			
5.4.	<p>Target Audience: Community Leaders and Community-Based Organizations (e.g., institutions, municipalities, service clubs, social and affinity groups, NGOs, etc.)</p> <p>Recognize leadership; share success stories and role models; expand involvement and participation within civic society</p> <p>[Incorporated into 5.5]</p>	<p>2-M</p> <p>1-L</p> <p>1-H</p>	<p>1-M</p> <p>2-L</p> <p>1-N</p>			

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
5.5. [5.3, 5.4, 5.7, 5.8]	Target Audience: General Public Increase awareness and engage in climate actions in personal and professional lives. This includes future generations, and leaders and community-based organizations; implementation methods to include a Governor's conservation challenge initiative to motivate all Floridians to reduce their energy consumption and take advantage of <i>Volunteer Florida</i> "Serve to Preserve" for residential energy efficiency and renewable outreach.	1-M 2-L 1-H	1-M 2-L 1-N			
5.6	Target Audience: Industrial and Economic Sectors Sector-specific climate change education and outreach.	2-H 1-L 1-M	1-H 2-L 1-N			
5.7	Governor's conservation challenge initiative to motivate all Floridians to reduce their energy consumption. [Incorporated into 5.5]	1-M 2-L 1-H	1-M 2-L 1-N			TWG addition

Option No.	GHG Reduction Policy Option	Potential GHG Emissions Reduction	Cost per Ton	Energy Security, Externalities, and Feasibility Considerations	Priority for Analysis	Notes
5.8	<p>Take advantage of Volunteer Florida “Serve to Preserve” for residential energy efficiency and renewable outreach [Incorporated into 5.5]</p>	<p>1-M 2-L 1-H</p>	<p>1-M 2-L 1-N</p>			TWG addition
5.9	<p>Target Audience: Visitors Encourage visitors to appreciate climate issues.</p>	4-L	<p>3-L 1-N</p>			Action Team addition