Louisiana Greenhouse Gas Inventory Project

Task 2 Report: Overview of States'

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1. INTRODUCTION

Louisiana Economic Development (LED) contracted LSU's Center

Many state policies are implemented as a result of or in conjunction with a regional collaborative, such as the Climate Registry, the Regional Greenhouse Gas Initiative (RGGI), the Western Climate Initiative (WCI), and the Midwestern Regional Greenhouse Gas Reduction Accord (MID). See RGGI Overview in Appendix 1. The target goals within these voluntary programs vary by state and region. Each is reviewed in this section. Many states that are not part of a regional initiative choose to enact legislation or implement policies of their own accord.

A greenhouse gas emission inventory is a foundation for climate and energy policy. Knowledge of GHG contributions from the various economic sectors can be very important information for developing emissions management strategies. All states in the Southeast region, with the exception of Alabama, have completed greenhouse gas inventories.

Arkansas and Florida have officially instated climate action plans as a start toward developing a comprehensive set of policies. Georgia and Mississippi, however, have less institutionalized programs that fulfill similar missions. In these states, as well as in Louisiana, non governmental organizations with goals involving environmental conservation, social equity, and economic development work toward implementing policies aimed at reducing hydrocarbon consumption and greenhouse gases emissions. Louisiana activities are outlined in section 3 of this report. The glossary of Climate and Energy Policy Vehicles in sections 4 and 5 cites examples of legislation enacted in other states.

	Climate Action Plan	Climate Change Commission	GHG Targets	GHG Inventory	GHG Registry
AL				Yes	Voluntary
AR	2008	2007			
FL	2008	2008	2007	Yes	Mandatory
GA				Yes	Voluntary
LA		2009		Yes	
MS				Yes	
TX				Yes	Independent

Information Source:

2. ECONOMIC COMPETITIVENESS

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In 1999, the Center for Energy Studies at

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Excellence to develop the “Louisiana Speaks” guidebook for sustainable building and design in our subtropical, hurricane prone climate. The smart growth style of planning is promoted in this program’s materials and encourages energy efficiency, walk able

In 2008, the Florida state legislature passed the Florida

pollution abatement, environmental economics and public finance theory suppose that optimum tax rate approximates the social cost or externality associated with per unit of pollution.

: In November of 2006, voters in Boulder, Colorado passed the Climate Action Plan (CAP) tax. The first U.S. municipal carbon tax on is levied on businesses and residents for electricity consumption per kilowatt hour. Revenue raised was to fund energy conservation programs with a goal of greenhouse gas emission reductions to the target set by the international Kyoto Protocol. The revenue generated is used to fund climate action strategies and programs (City of Boulder, 2009).

5. ENERGY POLICY VEHICLES

Goals related to developing non petroleum, or "alternative" energy sources can be part of legislative policy or mandates imposed by an energy regulatory entity. Energy efficiency measures complement this fuel mix transition with reductions in aggregate utility generation, which have a direct impact on levels of utility emissions. Often these two types of policy measures are used in combination by states. The chart below identifies states' rules, regulations, and other policies for alternative energy and energy efficiency.

Hawaii	**HI**	**RPS, NM, IS, CL, AL, CD**	**ESPB, BEC**
Idaho	**ID**	**NM, AL**	**ESPB, BEC**
Illinois	**IL**	**PBF, RPS, NM, IS, CD, GPP**	**ESPB, BEC, PBF**
Indiana	**IN**	**NM, IS, AL, CD, GPP**	**ESPB, BEC**
Iowa	**IA**	**RPS, NM, IS, AL, MU**	**ESPB, BEC**
Kansas	**KS**	**RPS, NM, IS, AL, CD**	**ESPB,** BEC
Kentucky	**KY**	**NM, IS, AL**	**ESPB, BEC**
Louisiana	**LA**	**NM, IS**	**ESPB, BEC**
Maine	**ME**	**PBF, RPS, NM, AL, CD, GPP**	**ESPB, BEC, PBF**
Maryland	**MD**	**RPS, NM, IS, AL, CD,** Gl,tU6Y”ò$ #ql ÐÀ0,	

Wisconsin	**WI**	**PBF,**

Transportation Fuel Standards—regulations intended to improve the average fuel economy of cars and/or light trucks or reduce vehicle emissions by requiring the use of alternative fuels.

> California's Low Carbon Fuel Standard calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. The Low Carbon Fuel Standard Program instructed the California Environmental Protection Agency to coordinate activities between the University of California, the California Energy Commission and other state agencies to develop and propose a draft compliance schedule to meet the 2020 target (The California Energy Commission, 2009). (The

Many states and local governments, as well as the federal government, have chosen to lead by example by requiring new government buildings to meet strict energy standards through voluntary programs. The United States Green Building Council developed a popular certification program called "Leadership in Energy & Environmental Design." Some regional energy codes require certain buildings to meet efficiency standards, others only encourage applying construction methods beyond average. Although there are still hurdles to complete implementations, building code policies have been implemented by Texas through the Health & Safety Code and in Louisiana, as a mandated EPAct Conservation Code.

> The 2007 Texas Health & Safety Code Section 388.001 finds that an effective building energy code is essential to: (1) reducing the air pollutant emissions that are affecting the health of residents of this state;(2) moderating future peak electric power demand;(3) assuring the reliability of the electrical grid; and (4) controlling energy costs for residents and businesses in this state (Texas Health and Safety Code, 2007).

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Appliance Efficiency Standards—Many states have established minimum efficiency standards for certain appliances and equipment. In these states, the retail sale of appliances and equipment that do not meet the established standards is prohibited.

The federal government has also established efficiency standards for certain appliances and equipment. When both the federal government and a state have adopted efficiency standards for the same type of appliance or equipment, the federal standard overrides the state standard even if the state standard is stricter. The federal government has imposed and updated appliance efficiency standards through several legislative acts, and now has standards in place or under development for 30 classes of products. In general, states which had set standards prior to federal action may enforce their own state;(2)

grants, loans, industry support bonds, and production incentives. Popular incentives for the renewable energy sector are tax exemptions or rebates and loan programs.

> Companies in Texas, engaged solely in the business of manufacturing, selling, or installing solar energy devices are exempted from the franchise tax. The franchise tax is Texas's equivalent to a corporate tax; their primary elements are the same. There is no ceiling on this exemption, so it is a substantial incentive for solar manufacturers (Texas State Energy Office, , 2009).

Grants, Loans, and Targeted Project Funding—States offer a variety of grant programs to encourage the use and development of renewable energy technologies and energy efficiency measures. Most programs offer support for a broad range of technologies, while a few programs

References

City of Austin, Texas (2008). . Retrieved November, 2009, from Austin City Connection: http://www.ci.austin.tx.us/acpp/acpp.htm

City of Boulder, Colorado (2009). . Retrieved November, 2009, from City of Boulder, Office of Environmental Affairs: http://www.bouldercolorado.gov/index.php?option=com_content&task=view&id=7698&Itemid=2844

The California Energy Commission (1994 2009). California's Appliance Efficiency Program. Retrieved October 30, 2009, from California Energy Commission, CA.gov: http://www.energy.ca.gov/appliances/

The California Energy Commission (2009). Low Carbon Fuel Standard. Retrieved October 30, 2009, from The California Energy Commission, CA.gov: http://www.energy.ca.gov/low_carbon_fuel_standard/

Congressional Budget Office (2009). - . Retrieved September 2009, from CBO Publications: www.cbo.gov/ftpdocs/105xx/doc10573/09 17 Greenhouse Gas.pdf

Florida Department of Environmental Protection (2009). . Retrieved September 30, 2009, from Florida Climate Change Home: http://www.dep.state.fl.us/ClimateChange/rulemaking.htm

State of Florida (2007). Executive Order Number 07 127 Office of the Governor. Retrieved November 29, 2009, from Office of the Governor, State of Florida: http://www.flgov.com/pdfs/orders/07 127 emissions.pdf

State of Florida (2007). Governor Crist Signs Executive Order to Reduce Greenhouse Gases. Retrieved November 29, 2009 , from Florida Governor Charlie Crist: http://www.flgov.com/release/9217

Herz, W. J., Griffin, R. A., & Gunther, W. D. (1997). Policy Planning to Reduce Greenhouse Gases in Alabama. Retrieved November 3, 2009, from EPA Climate Change State and Local Governments: http://epa.gov/climatechange/wycd/stateandlocalgov/downloads/Alabama_action_plan.pdf

Louisiana Department of Natural Resources (2009). Home Energy Rebate Option. Retrieved November 21, 2009, from Department of Natural Resources, Louisiana.gov: http://dnr.louisiana.gov/sec/execdiv/techasmt/programs/residential/hero/

Louisiana Public Service Commission (2005). Docket No. R 27558, General Order. Retrieved November 23, 2009, from Louisiana Department of Natural Resources: http://dnr.louisiana.gov/sec/execdiv/techasmt/financial_incentives/solar/Net%20Metering%20Final%20Rules%2010 18 05.pdf

Louisiana Department of Natural Resources (2009) . Retrieved April, 2010, from the Louisiana State Energy Office: http://dnr.louisiana.gov/sec/execdiv/techasmt/programs/ARRA_2009/

State of Louisiana (2008). Governor Bobby Jindal Announces Executive Order on Environmentally Friendly Government. Retrieved October 25, 2009, from Office of the

City of San Fransisco, California (2007). .
Retrieved November, 2009, from SFgov:
http://www.municode.com/content/4201/14130/HTML/ch008a.html

Texas Health and Safety Code, Section 388.001. (2007). Retrieved October 30, 2009, from OneCle Court Opinions: http://law.onecle.com/texas/health/388.001.00.html

Texas State Energy Office (2009). LoanSTAR Revolving Loan Program. Retrieved October 30, 2009, from Texas State Energy Conservation Office: http://www.seco.cpa.state.tx.us/ls/

Texas State Energy Office(2009). Solar Energy Devices Business Franchise Tax Exemption, Texas Tax Code Incentives for Renewable Energy. Retrieved October 30, 2009, from State Energy Conservation Office: http://www.seco.cpa.state.tx.us/re_incentives taxcode statutes.htm#171.

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APPENDIX 1. STATE CLIMATE AND ENERGY

APPENDIX 2.

APPENDIX 3. LOUISIANA STATE ENERGY PROGRAMS

Information Source: Louisiana Department of Natural Resources

"Lead by Example" Energy Efficiency Program

Budget Amount = $25,723,807.00

The Lead by Example program will provide funding for energy efficiency retrofits of higher education buildings in response to Governor Jindal's Executive Order No. BJ2008 8. The program will be administered under a Memorandum of Understanding between the Department of Natural Resources and the Division of Administration's Facility Planning and Control (FPC).

Residential/Commercial Energy Efficiency Program

This program has three distinct components.

1. The Commercial Energy Efficiency component is designed to encourage business owners to retrofit their commercial buildings. The program will offer cash incentives of 25 percent of the cost of cost effective energy efficiency improvements up to a maximum of $5,000. An energy audit by a certified energy auditor or specially trained professional engineer will be required.

2. The New Residential Construction component is designed to encourage the building of new homes to a high level of energy efficiency. A cash incentive of $2,000 will be offered for homes built to the Department of Energy Builder's Challenge level, and a $3,000 cash incentive will be offered for homes built to the more stringent federal tax credit level. This incentive can go to the builder, the developer, the home owner, or non profit or for profit that funds the construction. An energy audit by a certified energy auditor will be required.

3. The Existing Residential component is designed to encourage homeowners to improve the efficiency of their existing homes. This is an enhancement of the current DNR HERO program. Under the enhanced program, participating individuals will be offered a cash incentive of 25 percent of the cost of cost effective energy improvements up to a maximum of $3,000. The incentive can go to the homeowner, or non profit or for profit entity that funds the improvement. An energy audit by a certified energy auditor will be required.

Energy

Transportation Efficiency & Alternative Fuels Program

The Alternative Fuels program will assist local communities in paying the differential costs between traditional mass transit buses, school buses and fleet vehicles and dedicated or converted compressed natural gas (CNG) vehicles of the same type. The program will pay up to 50 percent of the differential costs for dedicated or converted CNG mass transit or school buses up to $50,000 each and dedicated or converted CNG fleet vehicles up to $25,000 each. Additionally it will assist communities with equipment purchases for publicly accessible quick fuel CNG fueling stations by funding up to 50 percent of the cost of four quick fuel CNG fueling stations up to a maximum of $1.25 million each. The program is a competitive grant program open to all Louisiana local government entities.

This program will pay up to 50 percent of the cost of deployment of light emitting diode (LED) traffic lights and energy efficient and photovoltaic street lighting. Improvements in lighting efficiency due to tremendous advances in lighting efficiency present some of the most cost effective energy savings strategies for local governments. The program is a competitive grant program open to all Louisiana local government entities.

Renewable Energy Development Grant Program

The Renewable Energy Development Grant program is designed to encourage the deployment of commercially available, but as yet underutilized renewable energy resources. Some examples of these resources include hydrokinetic energy, biomass, solar electric, solar thermal, and geothermal energy. The program will offer competitive grants to implement renewable energy projects in the state. An open solicitation will be issued and selection of projects will be based on

2. General Public Energy Efficiency & Renewable Energy Education

This component will provide