Louisiana Greenhouse Gas Inventory Project

Task 2 Report: Overview of States' Climate Action and/or Alternative Energy Policy Measures

Prepared for

LED | LOUISIANA ECONOMIC DEVELOPMENT

Prepared by

LSU CENTER FOR ENERGY STUDIES

April 2010

Acknowledgments

Project Funding

This project was made possible through funding support from Louisiana Economic Development.

Project Team and Principal Authors

Dr. Mike D. McDaniel
Dr. David E. Dismukes
Lauren L. Stuart
Jordan L. Gilmore

Project Advisory Team

A Project Advisory Team (PAT) assembled for this research effort provided valuable direction and input for the collection and analysis of greenhouse gas data for Louisiana. PAT members were:

Brian Bond, American Electric Power
David Castille, Louisiana Economic Development
Jason El Koubi, Louisiana Economic Development
Mike French, Louisiana Department of Natural Resources
Karen Gautreaux, The Nature Conservancy
Henry Graham, Louisiana Chemical Association
Richard Metcalf, Louisiana Mid-Continent Oil & Gas Association
Paul Miller, Louisiana Department of Environmental Quality
Will Perkins, Georgia-Pacific
Terry Ryder, Consultant-Government Affairs
Emily Stich, Louisiana Association of Business and Industry
Dr. Daniel Thomas, LSU AgCenter

Report Review and Editing

Marybeth Pinsonneault provided valuable assistance in preparation of this report through review and editing of the text.

TABLE OF CONTENTS

LIST OF TABLES

Table **Page**

1. INTRODUCTION

Louisiana Economic Development (LED) contracted LSU's Center for Energy Studies (CES) in November 2008 to conduct an analysis related to ramifications of potential federal greenhouse gas regulation on the State of Louisiana. The overarching purpose of the project was to help prepare Louisiana for the possible federal regulation of greenhouse gases (GHG) and to assure that the state's economic competitiveness was not compromised and economic development opportunities were recognized. Goals (or tasks) for the project were to:

- Develop a comprehensive state-wide greenhouse gas inventory.
- Conduct a thorough review of measures being taken or contemplated by other states to accommodate climate change concerns or expected federal greenhouse gas regulations.
- Prepare a high-level assessment of the impacts of the most likely federal greenhouse gas regulatory schemes on Louisiana's economy.
- Prepare a list of potential state and industry strategies for responding to requirements and opportunities brought by federal greenhouse gas regulation.

This report is the deliverable end item for completion of Task 2 – Review of measures being taken or contemplated by other states to accommodate climate change concerns or expected federal greenhouse gas regulation.

The intent of this policy overview is to inform Louisiana stakeholders of what measures the state might consider to implement, or to avoid, to enhance its competitive advantage for economic development relative to other states. Task 3 of the Louisiana State Greenhouse Gas Inventory Project will assess economic impacts using econometric modeling. The final element of this project (Task 4) will entail making recommendations for policy measures based on baseline emission levels, other state's actions, and projected economic impacts.

This Center for Energy Studies project is guided by a Project Advisory Team (PAT) as part of the "Quality Assurance and Quality Control" measures. The team includes representatives across academic expertise, non-governmental special interest, industry sectors, and state agencies. A draft report was released in December 2009 for PAT review. Full results will be posted online upon the finalization of the report, expected by July 2010.

This review identifies measures taken or proposed by other states in anticipation of federal GHG regulation and/or in response to climate change concerns. Measures are categorized as either Climate Action or Alternative Energy policy measures. "Climate Action" measures refer to emission mitigation strategies and plans with specified greenhouse gas reduction goals, whereas "Alternative Energy" related activity may have any combination of economic, environmental or national energy security motivations. The following review will consider policies of almost all states, but will focus on Louisiana and its neighbors in the southeastern United States, specifically, Texas, Mississippi, Arkansas, Alabama, Florida, and Georgia.

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.

Table 1.1. Southeast Climate Policy Initiated between 2000 & 2010

	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: *Pew Center on Global Climate Change*

2. ECONOMIC COMPETITIVENESS

> *"The economic impact of any policy to reduce greenhouse-gas emissions would depend on a variety of policy and program design decisions that would be made by the Congress or the regulatory agencies that implemented such a policy. Most importantly, the economic impact would depend on whether the policy worked primarily through taxes on emissions, a cap-and-trade program for emissions, regulatory standards to reduce emissions, or a combination of those approaches. The economic impact would also depend on the stringency of the cap, whether other countries also adopted programs to reduce emissions, and other factors that would be specific to the approach chosen."*

Economic competitiveness is an underlying concern and potential opportunity with respect to Greenhouse Gas and Energy policy. Just as in the case for United State's participation in global climate negotiations, states weigh the costs and benefits of policy adoption (against those of other states). Louisiana's regional advantages rely heavily on how it will respond to potential changes in the regulatory structures. Energy-intensive industries, for example, stand to experience a negative competitiveness effect in some proposed policy scenarios.

State policymakers considering climate action or alternative energy measures must choose whether to adopt conventional regulatory approaches, or to employ market-based approaches, such as taxes on emissions or cap-and-trade programs. Market-based approaches are expected to limit emissions at a lower cost than command-and-control regulations would. On the other hand, command and control policy vehicles may have a more direct effect on emission levels, depending on the implementation and enforcement procedures.

According to the Congressional Budget Office, nationally proposed legislation such as the "American Clean Energy and Security Act of 2009" has the benefit of maintaining interstate commercial equity; however, regional distribution still has the potential to favor some areas over others. Qualitative modeling has shown that the scenarios being discussed are likely to induce modest changes in near-term demand for energy. Beyond a fifteen-year window, emission reductions are likely to come increasingly from the energy sector due to technological developments, conservation measures, and shifting the electricity generation fuel mix (Congressional Budget Office, 2009).

3. LOUISIANA ACTIVITY

In Louisiana, "Sportsman's Paradise," state agencies have collaborated with policy makers, non-governmental organizations, and industry stakeholders to prepare for risks and seek opportunities associated with the regulation of greenhouse gas emissions. Across the state of Louisiana, several campuses, cities, and companies have taken the initiative to minimize their "carbon footprint." Louisiana's greenhouse gas related activity includes programs, policies, and studies outlined in this section.

Studies

In 1999, the Center for Energy Studies at Louisiana State University prepared an "Inventory of Greenhouse Gases in Louisiana" for the Louisiana Department of Natural Resources. The report can be found in the DNR online archives.
http://dnr.louisiana.gov/SEC/EXECDIV/TECHASMT/reports/LA_GHG_inventory_report.pdf

An important part of the inventory is the estimation of carbon sinks (natural carbon sequestration) which contribute positively to baseline CO_2 equivalents. The state has had federal involvement in carbon sequestration, particularly through the U.S. Fish and Wildlife Service, focusing on reforestation activities in the Mississippi Delta.

The 2010 project, "Preparing Louisiana for the Possible Federal Regulation of Greenhouse Gases" includes an update to the state's first greenhouse gas inventory, supported by Louisiana Economic Development to be published by the Center for Energy Studies. The report is available online:
http://www.enrg.lsu.edu/files/images/publications/online/2000/Inventory_Report.pdf

Policy

In recent years, prospects for diversifying Louisiana's revenue sources through alternative energy have led to the implementation of several pieces of legislation. Fiscal policy including bio-fuel gas tax exemptions and subsidies for residential electricity production have been implemented, and mandates for alternative fuels and orders to retrofit government buildings for energy efficiency have been passed in legislature.

Louisiana enacted legislation in June 2003 establishing net metering. Modeled on Arkansas's law, Louisiana's law requires investor-owned utilities, municipal utilities, and electric cooperatives to offer net metering to customers that generate electricity using solar, wind, hydropower, geothermal, or biomass resources. Fuel cells and micro-turbines that generate electricity entirely derived from renewable resources are also eligible. Net metering is available for residential systems up to 25 kilowatts (kW) in capacity, and commercial and agricultural systems up to 300 kW (Louisiana Public Service Commission, 2005).

On June 12, 2006, Louisiana Governor Kathleen Blanco signed into law a mandate that ethanol-blended fuels be sold in Louisiana. This legislation was passed in order to foster bio-fuel production in the state, provide an alternative market for farmers, and improve the environment. The new law requires that ethanol produced from domestically grown feedstock or other biomass material account for two percent of the total gasoline sold in the state and that two percent of the total diesel sold in the state be biodiesel. The mandate will go into effect six months after there are 50 million gallons of ethanol in annual production or 10 million gallons of biodiesel in the state, unless the Louisiana Commission on Weights and Measures determines there is a not sufficient supply or distribution capability in the state.

In 2007, the Louisiana legislature passed Act 371, which gives a tax credit for solar and wind energy systems. This legislatively directed residential photovoltaic credit offers a rebate to homeowners. Up to 30 percent of the expense for a standard-sized system can be covered by the state. This payment is made in addition to a 50 percent consumer credit offered by the federal government. The 80 percent cost coverage is often attributed to the rapid expansion of the solar installation industry. More firms are hiring workers with technical skills, and community colleges are developing training programs to foster the labor market. (http://www.legis.state.la.us/)

The solar tax incentive has benefits beyond greenhouse gas emission reductions, including job creation, educational opportunities, and money savings for utility customers. Especially with net metering in place, homeowners have benefited from lowered electricity expenses. However, to make a recognizable difference in aggregate energy consumption or overall emission levels, the scale of adoption must rise to at least the commercial building sector.

In 2008, Louisiana governor Bobby Jindal, issued an executive order to "Green Government" to reduce greenhouse gas emissions (State of Louisiana, 2008). This executive order did not articulate specific GHG reduction goals but can contribute to GHG reduction by efficiency gains and alternative energy use. The effectiveness and endurance of an executive order is generally reliant upon enforcement from the governor's office, by policy makers in the legislature, and/or through state agency responsiveness.

The 2008 Louisiana legislative session passed Act 382, the "Advanced Biofuel Industry Development Initiative," as a matter of greenhouse gas emission reduction and rural economic development. Among other recommendations for a comprehensive "field-to-pump" strategy, the bill requires the use of feedstock other than corn and specifies that the biofuel be derived solely from Louisiana harvested crops. (http://www.legis.state.la.us/)

In 2009, a legislative resolution was passed to establish the State Climate Change Commission to be directed by the office of the governor, ranking members of the legislature, secretaries of state agencies, and academic faculty. Board details can be found online at http://www.legis.state.la.us/boards/board_members.asp?board=903

Programs

Especially after 2005's Hurricanes Katrina and Rita, federal funding and private donations have been invested in coastal protection and restoration. In recent years, alliances such as the America's WETLAND Foundation and its "America's Energy Coast" have campaigned for national recognition and support to preserve the endangered coastal zones of the entire Gulf region. Partners for the foundation can be found online at http://www.americaswetland.com/

Also after the 2005 hurricanes, the Louisiana Recovery Authority worked with metropolitan and municipal planning commissions as well as non-profits such as the Center for Planning

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 neighborhoods, parks, and recreational spaces. Engineering consultants are recommended for projects such as waste management, bio-remediation, micro-level emission inventories, and pollution mitigation strategies. Project information is available online at http://www.louisianaspeaks-parishplans.org/

The Nature Conservancy creates economic value through renewable energy credits with projects that reconnect floodplains, conserve carbon sink forest, and/or preserve critical habitat. Projects in the Tensas River Basin and the Red River Valley are expected to absorb hundreds of thousands of metric tons of $C0_2$ over a 100-year period. An overview of acreage and estimated impacts is online: http://www.nature.org/wherewework/northamerica/states/louisiana/files/lafo_2009_annual_report.pdf

The Department of Natural Resources (LDNR) runs multiple programs, including the Energy Fund program, available for any publicly funded institution implementing energy conservation measures under a performance-based energy efficiency contract. Funding must be used exclusively to provide interest rate reduction on third-party energy conservation loans to publicly funded institutions domiciled in Louisiana.

Another LDNR program for utility customers is the Louisiana Home Energy Rebate Option (HERO), which offers an actual cash rebate payment to Louisiana residents who make an energy efficiency improvement of 30 percent or more to existing homes. HERO is a component of the Home Energy Loan Program of the Louisiana Department of Natural Resources (DNR) overseen by the Technology Assessment Division. Since its creation in 1999, the program has been attributed to 13.3 billion BTU of energy savings. Information is available online at http://dnr.louisiana.gov/sec/execdiv/techasmt/programs/residential/hero/

The Louisiana State Energy Program, run by the Louisiana Department of Natural Resources, submitted a proposal to the United States' Department of Energy on May 8, 2009, for funding from the American Recovery and Reinvestment Act. Energy efficiency and renewable energy programs have been developed to distribute the funding across sectors. Numerous stakeholders provided input for plans, which are being implemented by a general contractor. Grants will be competitively awarded to eligible projects, to be completed by 2011. (Louisiana Department of Natural Resources, 2010)

The Louisiana Public Service Commission has assessed the feasibility of a renewable portfolio standard for the state of Louisiana in a report completed on December 18, 2009. This analysis provides a technical resource overview including biomass, hydrokinetic, solar, offshore wind, combined heat and power, and waste heat recovery, as well as energy efficiency. Staff

representing the consulting firm, J. Kennedy and Associates, conclude "it is likely that over 25 percent of the RPS requirement may be satisfied by existing resources."

Some uncertainty regarding cost effectiveness is attributed to the potential volatility in both natural gas and carbon dioxide costs. An increase in the consumption of natural gas (as an alternative to coal for utility generation) would put upward pressure on gas prices contributing to a more attractive renewable portfolio. Under the assumption of 20 percent increase in natural gas and CO_2 costs, the RPS case proves to be less costly than the status quo case. (Louisiana Public Service Commission, 2009)

Environmental benefits will only be achieved when electricity generation is produced by a low carbon fuel mix, transported efficiently, conserved at the consumer end, and supplemented with renewable sources.

4. CLIMATE POLICY VEHICLES

The following policy measures are implemented with the specific goal of reducing atmospheric greenhouse gas emissions. Action plans, executive orders, mandates, and taxes are the most common mechanisms used on the state level. This section defines policy vehicles, provides regional examples, and includes tables to illustrate the range of components that states implement. The glossary format is intended to serve as an easy reference for readers.

Climate Action Plans—vary from state to state, yet all follow prescribed steps toward the achievement of a given goal for greenhouse gas emission reductions. A climate action plan commonly includes: the development of a greenhouse gas inventory for the state; the projection of future emissions based on expected population, economic growth, and other factors; identification of areas where emissions could be reduced; and the development of a greenhouse gas emissions reduction goal.

Executive Order—non-direct policy measure initiated with the stated purpose of reducing greenhouse gas emissions. Executive orders generally state a broad goal and charge agencies, commissions, or other regulatory entities to determine specific reduction targets or abatement measures.

> *Exampl*e: Florida governor, Charlie Crist, set targets within the Executive Order 07-127 which directs immediate action to reduce greenhouse gas emissions through specific state agencies to developing rules, codes and standards (State of Florida, 2007).

Mandates—set by the legislature, commission, or a regulatory entity, represent an authoritative command or authorization for the reduction of greenhouse gases, can be specified to technology-based and performance-based facilities, projects, and reporting. Types of state mandates include the Renewable Electricity Standard, the Renewable Fuel Standard, and a variety of efficiency standards (such as fuel economy).

Example: In 2008, the Florida state legislature passed the Florida Climate Protection Act (Florida Statute 403.44). The law requires Florida's electric utilities to report their emission to The Climate Registry and authorized the Florida Department of Environmental Protection to adopt rules for a cap-and-trade program to reduce GHG emissions from electric utilities. (U.S. Environmental Protection Agency, 2009).

Cap and Trade—sets a regional limit on greenhouse gas emissions. The carbon market would function in a similar manner as the sulfur dioxide allowance exchange established by the United States Environmental Protection Agency for its acid rain program. Many facilities (manufacturing, processing, refining, etc.) report emissions to comply with federal and state emissions reporting requirements. Both federal and state air quality regulations require major emitters to obtain permits to cover certain emissions.

Establishment of emission markets incorporates the price incentive into environmental decision making. Even without state mandate, some corporations choose to participate in voluntary registries. In this case, they either buy pollution permits or sell emission credits. Policy details vary, along with terminology for these "permits," which can also be called "allowances" or "credits". Each unit of pollutant emissions is assigned a monetary value to relate the abstract greenhouse gas market with tangible capital investments.

The total amounts of permits sold by the market administrators are limited by a policy-driven goal. Aggregated reported emissions should remain below that total level. Companies that emit more than their specified allocation must buy credits from other firms who have made investments to reduce emissions. This transfer of allowances follows the "polluters pay" principle and encourages cost-effective emission mitigation.

Currently, there are no mandatory carbon caps in place at the state level. However, voluntary trading has emerged through the Chicago Climate Exchange. Regional agreements also encourage the exchange of pollution permits in units of Carbon Dioxide Equivalents (see Appendix 1. for RGGI Overview).

Studies of cap and trade assess national policy proposals. The Congressional Budget Office and the Pew Center on Global Climate Change have run economic modeling to forecast the economic impact of a mandated emission trading scheme. Some challenges, the research concluded, were the administrative undertaking involved in managing an economy-wide program to monitor and report additional emissions. Even considering the bureaucracy involved in existing environmental reporting, monitoring carbon would be an even heavier burden.

Carbon Tax—A tax on carbon specifically, or greenhouse gas emissions broadly, is a set charge on energy consumption. Whereas an emission cap lets the market determine the price of allowances (or permits for pollution), a tax is a predetermined rate. This approach makes revenue budgeting more accurate, yet leaves emission reduction levels uncertain. To achieve

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.

> *Example*: 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.

Table 5.1. Policy Vehicles for Alternative Energy & Energy Efficiency

Alternative Energy Abbreviation Key	Efficiency Abbreviation Key
PBF = Public Benefit Funds RPS= Renewable Portfolio Standards NM= Net Metering IS= Interconnection Standards EA= Extension Analysis CL= Contractors License EC= Equipment Certification AL= Access Laws CD= Construction & Design Energy Codes GPP= Green Power Purchasing w/ RECs MU= Required Green Power	**AES= Appliance/ Equipment Standards** **BEC= Building Energy Codes** **ESPB= Energy Standards for Public Buildings**

State		Alternative Energy Abbreviation	Efficiency
Alabama	**AL**	**n/a**	**ESPB, BEC**
Alaska	**AK**	**AL**	**BEC**
Arizona	**AZ**	**RPS, NM, IS, EA, CL, EC, AL, CD, GPP**	**AES, ESPB, BEC**
Arkansas	**AR**	**NM, IS, CD**	**ESPB, BEC**
California	**CA**	**PBF, RPS, NM, IS, CL, AL, CD, GPP**	**AES, ESPB, BEC, PBF**
Colorado	**CO**	**PBF, RPS, NM, EA, AL, CD, GPP, MU**	**ESPB, BEC, PBF**
Connecticut	**CT**	**PBF, RPS, NM, IS, CL,CD, GPP**	**AES, ESPB, BEC, PBF**
Delaware	**DE**	**PBF, RPS, NM, IS, AL, CD, MU**	**ESPB, BEC, PBF**
Florida	**FL**	**RPS, NM IS, CL, EC, AL, CD**	**ESPB, BEC**
Georgia	**GA**	**NM, IS, AL**	**BEC**

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, GPP	AES, ESPB, BEC
Massachusetts	MA	PBF, RPS, NM, IS, AL, CD, GPP	AES, ESPB, BEC, PBS
Michigan	MI	PBF, RPS, NM, IS, CL, CD, GPP	ESPB, BEC, PBF
Minnesota	MN	PBF, RPS, NM, IS, EC, AL, CD	ESPB, BEC
Mississippi	MS	n/a	BEC
Missouri	MO	RPS, NM, IS, AL, CD	ESPB, BEC
Montana	MT	PBF, RPS, NM, IS, AL,MU	ESPB, BEC, PBF
Nebraska	NE	NM, IS, AL	BEC
Nevada	NV	RPS, NM, IS, CL, AL	AES, ESPB, BEC
New Hampshire	NH	RPS, NM, IS, AL, CD	ESPB, BEC, PBF
New Jersey	NJ	PBF. RPS, NM, IS, AL, CD	AES, ESPB, BEC, PBF
New Mexico	NM	RPS, NM, IS, AL, CD, MU	ESPC, BEC, PBF
New York	NY	PBF, RPS, NM, IS, AL, CD, RPP	AES, ESPB, BEC, PBF
North Carolina	NC	RPS, NM, IS, AL, CD	ESPB, BEC
North Dakota	ND	RPS, NM, AL	BEC
Ohio	OH	PBF, RPS, NM, IS, AL, CD	ESPB, BEC, PBF
Oklahoma	OK	NM, CD	ESPB, BEC
Oregon	OR	PBF, RPS, NM, IS, CL, EC, AL, CD, GPP, MU	AES, ESPB, BEC, PBF
Pennsylvania	PA	PBF, RPS, NM, IS, CD, GPP	ESPB, BEC, PBF
Rhode Island	RI	PBF, RPS, NM, AL, CD	AES, ESPB, BEC, PBF
South Carolina	SC	NM, IS, CD	ESPB, BEC
South Dakota	SD	RPS, IS, CD	ESPB, BEC
Tennessee	TN	AL	ESPB, BEC
Texas	TX	RPS, NM, IS, EA, CD, GPP	ESPB, BEC
Utah	UT	RPS, NM, IS, CL, AL, CD, GPP	ESPB, BEC
Vermont	VT	PBF, RPS, NM, IS, AL	AES, BEC, PBF
Virginia	VA	RPS, NM, IS, AL, CD, GPP	ESPB, BEC
Washington	WA	RPS, NM, IS, AL, CD, GPP, MU	AES, ESPB, BEC
West Virginia	WV	NM	BEC

Wisconsin	**WI**	**PBF, RPS, NM, IS, CL, AL, CD, GPP**	**ESPB, BEC, PBF**
Wyoming	**WY**	**NM, IS**	**BEC**
District of Columbia	**DC**	**PBF, RPS, NM, IS, AL**	**AES, ESPB, BEC, PBF**

Information Source: DSIREusa.org

Of the above policies, the ones most effective in the reduction of greenhouse gas emissions fall into three primary sectors: (1) Energy, (2) Transportation, and (3) Buildings and Construction. These three sectors are major contributors to emissions and are divided as such because they are regulated separately. Each sector will be discussed, and examples from existing policies in Louisiana, its neighbors, and others where necessary will be identified. The chart below presents programs by sectors for Louisiana and its neighbors.

Table 5.2. Alternative Energy and Efficiency Vehicles

Energy Policy Vehicle					
State	Public Benefit Fund	Renewable Portfolio Standard	Net Metering	Green Pricing	State Governments' Purchasing Power
AL				□	
AR			□		
FL		2007	□	□	□
GA			□	□	
LA			2006	2008	
MS					
TX	2007	2005	2007	2004	

Information Source: Pew Center on Global Climate Change

Public Benefits Fund (PBF)—Many were initiated as part of electricity restructuring and can be allocated toward a variety of renewable and energy efficiency programs, including research and development in these programs. The funds are collected either through a small charge on the bill of every electricity customer or through specific contributions from utilities. California's 1996 electric industry restructuring legislation (*AB 1890*), for example, directed the state's three major investor-owned utilities to collect a "public goods surcharge" on consumer electricity use to create public benefits funds for renewable energy ($540 million), energy

efficiency ($872 million), and research, development & demonstration (RD&D) ($62.5 million). Subsequent legislation extended the program for 10 years in 2002, and in 2007 it reduced annual collections (North Carolina State University, 2009).

Renewable portfolio standard (RPS)—A requirement of utilities to use renewable energy or renewable energy credits (RECs) to account for a certain percentage of their retail electricity sales – or a certain amount of generating capacity – within a specified timeframe. More than half of all states have established an RPS. The goal in using this mechanism is to stimulate market and technology development so that renewable energy becomes economically competitive. In the Southeast, just one state has a voluntary version of an RPS in place. The largest community-owned utility in the State of Florida has made a commitment to generate at least 7.5 percent of its electric capacity from "clean and green energy sources" by 2015. (See Appendix 2 for technologies that fall under the RPS requirement).

Utility Green Power Option—is a regulatory requirement for electric utilities to generate electricity from cleaner burning sources. The program is funded by increases in customer utility rates with the options to pay a premium for the further development of non-petroleum based resources. It is also commonly referred to as Green Pricing. The majority of these programs charge a higher price per kilowatt-hour or offer the chance to buy discrete kilowatt-hour blocks of renewable energy. Other programs have fixed monthly fees, round up customer bills, and charge for units of renewable capacity, or offer renewable energy systems for lease or purchase. By the end of 2007, more than 750 utilities across the nation, including investor-owned, municipal utilities, and cooperatives, offered a green pricing option.

> *Example:* The State of Oregon enacted legislation (S.B. 838) in June 2007 that requires all electric utilities to offer customers an optional green-power program. A "significant portion" of the electricity sold by a utility as green power must be generated using qualifying renewables, including wind energy, solar-thermal energy, solar-electric energy, ocean energy, geothermal energy, hydropower and/or certain forms of biomass energy. Each utility must inform customers of the sources of the electricity included in its green-power program (Oregon State Legislature, 2007).

Net Metering—Utility customers who generate their own electricity use net metering provisions to send excess generation back to the grid. This contributes to electricity consumed by the customer at a different time. Net metering is required by law in most U.S. states, but some of these laws apply only to investor-owned utilities, not to municipal utilities or electric cooperatives.

Green Power Purchases--Governments at all levels, businesses, residents, schools, nonprofit organizations and other entities can play a significant role in supporting renewable energy by buying electricity from renewable resources, or by buying renewable energy credits (RECs). Many state and local governments, as well as the federal government, have committed to

buying green power to account for a certain percentage of their electricity consumption. A few states allow local governments to aggregate the electricity loads of an entire community to purchase green power and, potentially, to join with other communities to form an even larger purchaser of green power – a concept known as "community choice."

Green power purchases are typically executed by contracts with green power marketers or project developers, with utility green power programs, or through community aggregation. Of Louisiana and its neighbors, Texas is the only state with cities that participate in green power purchasing.

> *Example:* Austin Climate Protection Plan, the City Council has set numerous goals for renewable energy, energy efficiency, and carbon emission reductions with the overall goal of making Austin a national leader in local climate change mitigation policy. Included in this larger goal is a goal of powering all city facilities with renewable energy by 2012. According to the *April 2009 Austin Climate Protection Plan Annual Report*, the city of Austin now procures roughly 19 percent of the total annual electricity needs of city facilities from renewable energy (City of Austin, 2008).

Access Laws / Easements—are are commonly written with respect to solar and wind electricity generation and can be implemented at both the state and local levels. The programs are designed to protect a consumer's right to install and operate a renewable energy system at a home or business. In some states, access rights prohibit homeowners associations, neighborhood covenants or local ordinances from restricting a homeowner's right to use solar energy. Easements, the most common form of solar access law, allow for the rights to existing access to a renewable resource on the part of one property owner to be secured from an owner whose property could be developed in such a way as to restrict that resource. An easement is usually transferred with the property title. At the local level, communities use several policies to protect solar access, including solar access ordinances, development guidelines requiring proper street orientation, zoning ordinances that contain building height restrictions, and solar permits.

> *Example:* Florida law forbids ordinances, deed restrictions, covenants, declarations, or similar binding agreements from prohibiting the use of solar collectors (including clotheslines) or "other energy devices based on renewable resources." Community associations are specifically prohibited from preventing the installation of solar collectors on residential rooftops (Florida Department of Environmental Protection, 2009)

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.

> *Example:* 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).

> *Example:* The Florida Clean Car Emission Rule (Adoption of California Motor Vehicle Emission Standards), effective on February 15, 2009, will apply to future makes and models of passenger cars, light-duty trucks, and sport utility vehicles. The first motor vehicles that will be subject to this rule are those from two model years after both of the following conditions have been met: (1) the U.S. EPA has granted the state of California a waiver for their automotive greenhouse gas standards, and (2) the Florida Legislature has ratified this rule. On June 30, 2009, the U.S. EPA granted the California waiver, but the Florida Legislature has not yet ratified this rule. Therefore, the Florida Clean Car Emission Rule does not currently apply to any motor vehicle delivered to Florida for sale, lease, or rent (Florida Department of Environmental Protection, 2009).

Green Building Standards—energy codes adopted by states (and some local governments) require commercial and/or residential construction to adhere to certain energy standards. While some governmental bodies have developed their own building energy codes, many use existing codes, such as the International Energy Conservation Code (IECC), developed and published by the International Code Council (ICC); or ASHRAE 90.1, developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (U.S. Department of Energy, 2010).

The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) is a popular point-based certification program for green buildings. The LEED system awards points for site selection and development; material, energy and water efficiency; indoor air quality; innovation; and the application of renewable technologies.

Some states have adopted a licensing process for renewable energy contractors and set certification requirements for trades involving solar water heating, active and passive solar space heating, solar industrial process heat, solar-thermal electricity, and photovoltaics (PV). These requirements are designed to ensure that contractors have the necessary experience and knowledge to install systems properly in compliance with energy standards.

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.

> *Example:* 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).

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 standards until the federal standards take effect. States that had not set standards prior to federal action must use the federal standards.

> *Example:* In California, this regulation creates standards for 23 categories of appliances, including standards for both federally-regulated and non-federally-regulated appliances. Standards now apply to new products offered for sale in California, such as commercial refrigerators and freezers, commercial ice makers, consumer audio and video products, commercial hot food holding cabinets, hot tubs, and vending machines (California Energy Commission, 1994-2009).

Incentives—An incentive program is a formal blueprint used to promote or encourage specific actions or behavior by a specific group of people during a defined period of time. Incentive programs are particularly used to stimulate the productivity of a specific sector, often by the use of rewards and penalties to encourage good performance. Incentive programs may include many of the policy measures generally discussed in this report. Others not discussed in detail include: personal tax, corporate tax, sales tax, property tax, utility rate discounts, rebates,

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

> *Example:* 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, *Solar*, 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 focus on promoting one particular technology, such as photovoltaic (PV) systems. Grants are available primarily to the commercial, industrial, utility, education and government sectors. Most grant programs are designed to pay down the cost of eligible systems or equipment. Others focus on research and development, or support project commercialization. In recent years, the federal government has offered grants for renewables and energy efficiency projects for end-users. Grants are typically available on a competitive basis.

Loan programs provide financing for the purchase of renewable energy or energy efficiency systems or equipment. Low-interest or zero-interest loans for energy efficiency projects are a common demand-side management (DSM) strategy for electric utilities. State governments also offer low-interest loans for a broad range of renewable energy and energy efficiency measures. These programs are commonly available to the residential, commercial, industrial, transportation, public and nonprofit sectors. Loan rates and terms vary by program; in some cases, they are determined on an individual project basis. Loan terms are generally 10 years or less. In recent years, the federal government has offered loans for renewables and energy efficiency projects. The loan program in Louisiana, called HERO, is operated by the State Energy Office within the Department of Natural Resources (Louisiana Department of Natural Resources, 2010). See Appendix 3 for an overview of State Energy Programs.

> *Example*: The Texas Energy Efficiency Loan Program, administered by the Texas Energy Conservation Office, is a program that provides energy efficiency project financing for state agencies, institutions of higher education, school districts, and local governments. The revolving loan mechanism allows borrowers to repay loans through cost savings from retrofit projects. Retrofits financed through the program include energy-efficient lighting systems; high-efficiency heating, ventilation, and air-conditioning systems; building shell improvements; and load management projects (Texas State Energy Office, 2009).

References

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

City of Boulder, Colorado (2009). *Climate Action Plan Tax*. 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). *The Economic Effects of Legislation to Reduce Greenhouse-Gas Emissions*. Retrieved September 2009, from CBO Publications: www.cbo.gov/ftpdocs/105xx/doc10573/09-17-Greenhouse-Gas.pdf

Florida Department of Environmental Protection (2009). *Rulemaking Process for Greenhouse Gas Emissions Reductions*. 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) *Economic Stimulus Information*. 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 Governor Bobby Jindal: http://gov.louisiana.gov/index.cfm?articleID=49&md=newsroom&tmp=detail

State of Louisiana (2008). *Governor Bobby Jindal Announces Executive Order on Environmentally Friendly Government*. Retrieved 10 30, 2009, from Office of the Governor Bobby Jindal: http://gov.louisiana.gov/index.cfm?articleID=49&md=newsroom&tmp=detail

Louisiana Public Service Commission (2009). *Restudy of the Feasibility of a Renewable Portfolio Standard for the State of Louisiana.* Docket Number R-28271, Subdocket B. Preliminary Taskforce Report by J. Kennedy & Associates; December 18, 2009

Louisiana State Legislature (2009). *Louisiana Laws.* Retrieved September, 2009 from the Web Portal to the Louisiana State Legislature: http://www.legis.state.la.us/

Mesyanzhinov, D. V., et al. (2000). *Inventory of greenhouse gases in Louisiana.* Prepared for the Louisiana Department of Natural Resources by Louisiana State University, Center for Energy Studies.

North Carolina State University (2009). *Summary Tables.* Retrieved November 13, 2009, from Database of State Incentives for Renewables and Efficiency: http://www.dsireusa.org/summarytables/index.cfm?ee=1&RE=1

Oregon State Legislature (2007). Renewable Portfolio Standards. Retrieved November 22, 2009, from Oregon State Legislature: http://www.leg.state.or.us/ors/469a.html

Pew Center on Global Climate Change (2010). *U.S. Climate Policy Maps.* Retrieved September, 2009, from U.S States and Regions: http://www.pewclimate.org/what_s_being_done/in_the_states/state_action_maps.cfm

City of San Fransisco, California (2007). *Article VIIIA: The Municipal Transportation Agency*. 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.

U.S. Environmental Protection Agency (2009). *Renewable Portfolio Standards Fact Sheet.* Retrieved July 2009, from Combined Heat and Power Partnership: http://www.epa.gov/chp/state-policy/renewable_fs.html

U.S. Department of Energy (2010). *Building Energy Codes 101, an Introduction.* Retrieved February 2010, from Energy Efficiency and Renewable Energy: http://www.energycodes.gov/training/pdfs/codes_101.pdf

APPENDIX 1. STATE CLIMATE AND ENERGY POLICY MEASURES
Information Source: Pew Center on Global Climate Change

Table A.1-1. Regional Greenhouse Gas Initiative (RGGI) Goals

Member State	Goal #1	Target Date	Goal #2	Target Date	Goal #3	Target Date	Measure
Connecticut			10% , 1990	2020	80 % <2001	2050	LAW
Maine	1990 Levels	2010	10% < 1990	2020	75% < 2003	After 2020	LAW
Maryland	10%< 2006	2012	50% < 1990	2020	90% < 2006	2050	Commiss ion
Massachusetts					80% < 1990	2050	LAW
New Hampshire	1990 Levels	2010	10% < 1990	2020	85% < 2001	Long Term	LAW
New Jersey			1990 Levels	2020	80% < 2006	2050	LAW
New York	5% < 1990	2010	10% < 1990	2020			LAW
Rhode Island	1990 Levels	2010	10% < 1990	2020	85% < 2001	After 2020	LAW
Vermont	1990 Levels	2010	10% < 1990	2020	85% , 2001	After 2020	LAW

APPENDIX 2.

Information source: U.S. Environmental Protection Agency

Table A.2-1. Eligible Technologies through Existing State Renewable Portfolio Standards

Eligible Technology Abbreviation Key		
BIO = Biomass/ Biofuels	FC = Fuel Cells	Landfill = Methane capture
CHP = Combined Heat and Power	GEO = Geothermal	Waste = Municipal sewage
	Hydro = Hydrokinetic	Ocean = Ocean Thermal
Eff = Building Retrofits		PV = Photovoltaic Solar

	AZ	CA	CO	CT	DE	DC	HI	IA	IL	MA	MD	ME	MI	MN	MO*	MT	NC	ND*	NH	NJ	NM	NV	NY	OH	OR	PA	RI	SD	TX	UT	VA*	VT*	WA	WI
Bio	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CHP**	•		•	•			•			•			•				•	•				•		•	•		•		•		•			•	
Eff				•			•		•				•				•					•		•		•								•	
FC ***				•								•		•					•	•			•	•	•	•									
Geo.	•	•	•		•	•	•			•	•	•	•		•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•		•	•
Hydro	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Landfill	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Waste		•		•		•	•	•		•	•		•	•	•				•	•		•		•		•		•				•		
Ocean		•		•	•	•	•			•	•								•				•	•	•		•	•	•	•	•		•	
PV	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Solar	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•		•	•	•	•	•	•	•
Tidal		•		•	•	•	•			•	•	•	•				•		•	•			•	•	•		•	•	•	•	•		•	•
Wave		•		•	•	•	•			•	•	•	•				•		•	•			•	•	•		•	•	•	•	•		•	•
Wind	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

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).
Board of Regents will submit projects from state universities while FPC will select projects based on maximizing energy savings per dollar expended and timeliness of completion. Reducing state government energy costs provides a benefit to all citizens.

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 Star Appliance Rebate Program
This program is designed to encourage the purchase of Energy Star appliances. DNR will seek to maximize partnership opportunities with utility companies to implement this program. It is specifically designed such that it will not be exclusive to a few major retailers at the expense of small, local appliance, and equipment stores.

It is expected that this program will be augmented by an additional $4.2 million in future federal stimulus funding and an undetermined amount from participating utility partners.

Transportation Efficiency & Alternative Fuels Program

Alternative Fuels

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.

Transportation Lighting Efficiency

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 established criteria.

Education, Training, and Outreach Program

1. Energy Efficiency & Renewable Energy Teacher Training

    This component is designed to encourage Louisiana science teachers to include energy efficiency and renewable energy education in their classroom. Under the program 64 sets of equipment and materials (one per parish) for hands-on, interactive energy efficiency and renewable energy experiments will be developed and in-service training will be provided for approximately 640 teachers.

2. General Public Energy Efficiency & Renewable Energy Education

This component will provide continuous information to Louisiana citizens on how to adopt cost effective energy efficiency technologies in their homes and businesses.

3. Home Energy Rater Equipment Grants

This component will provide grants for 50 percent of required equipment cost up to a maximum of $5,000 for the first 100 individuals obtaining certification from the Residential Energy Services Network (a national standard) as certified residential energy auditors.

4. General Program Outreach

The program will be used to provide outreach to Louisiana citizens regarding their opportunity to participate in energy stimulus programs and assist the state in attracting and developing the workforce necessary to accomplish the program goals.

5. Comprehensive Energy Plan for Louisiana

The program will fund the development of a comprehensive energy plan for Louisiana.