

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: PCB ENRC 07-01 Energy Efficiency & Alternative Fuel
SPONSOR(S): Environment & Natural Resources Council
TIED BILLS: **IDEN./SIM. BILLS:**

| REFERENCE | ACTION | ANALYST | STAFF DIRECTOR |
|--|--------|----------------------------------|----------------|
| Orig. Comm.: Environment & Natural Resources Council | | Collins, Wiggin, Whittier, Grabb | Hamby |
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SUMMARY ANALYSIS

This bill addresses several of the 100 Innovative Ideas for Florida’s Future addressed in Chapter VI – A Cleaner, Safer, Healthier Florida. Specifically, the following initiatives are included:

- ✓ Property Tax Exemption for Real Property with Renewable energy Source Device
- ✓ Energy Efficient Motor Vehicle Sales Tax Refund Program
- ✓ Renewable Energy Technologies Investment Tax Credit
- ✓ Florida Renewable Energy Production Credit
- ✓ Energy Efficient Building Standards for State, County, Municipal and Public Community Colleges
- ✓ Guaranteed Energy Performance Savings Contracting
- ✓ Energy Efficiency and Conservation Month and Energy Efficient Sales Tax Holiday
- ✓ Solar Energy System Incentives Program
- ✓ Greenhouse Gas Inventories
- ✓ Power Plant Siting Act
- ✓ Transmission Line Siting Act
- ✓ Farm-to-Fuel Advisory Council
- ✓ Renewable Energy Technologies Grants Program and Bioenergy Grants Program
- ✓ Biofuel Retail Sales Incentive Program
- ✓ Florida Biofuel Production Incentive Program
- ✓ Florida Building Commission/Energy Codes
- ✓ Biodiesel Fuel for State-owned Vehicles
- ✓ Biodiesel Fuel for School District Transportation
- ✓ Florida Energy, Aerospace, and Technology Fund
- ✓ Research and Demonstration Cellulosic Ethanol Plant
- ✓ Renewable Portfolio Standards

The bill appropriates a total of \$85.6 million for the following activities: Research and Demonstration Cellulosic Ethanol Plant, Renewable Energy Technologies Grants Program, Solar rebate program, Farm-to-Fuel Grants Program, Energy Efficient Motor Vehicle Sales Tax Refund Program; Workgroup to develop a model residential energy efficient ordinance and to review the cost-effectiveness of energy efficiency measures in the construction of certain buildings, and the development and implementation of a public awareness campaign that promotes energy efficiency and the benefits of building green. The bill also provides for a two week Energy Efficient Sales Tax Holiday and a \$3 million expansion for the next three years for the current sales tax exemption for renewable energy.

The bill has a negative fiscal impact on local governments and places a mandate on cities and counties.

This document does not reflect the intent or official position of the bill sponsor or House of Representatives.

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FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. HOUSE PRINCIPLES ANALYSIS:

Ensure lower taxes –

- The bill authorizes a property tax exemption for real property on which renewable energy source devices have been installed and are being operated.
- The bill authorizes a two-week sales tax holiday for energy efficient appliances.

Empower Families –

The bill contains tax incentives to promote the sale of energy-efficient products, vehicles, and the use of renewable energy source devices.

Maintain Public Security - The bill provides incentives for the sales of energy-efficient products and the use of renewable energy devices, which may lessen the state's dependence on imported fossil fuels.

B. EFFECT OF PROPOSED CHANGES:

100 Innovative Ideas for Florida's Future¹

The Environment & Natural Resources Council was charged with oversight responsibilities of most of Chapter VI of the 100 Innovative Ideas -- A Cleaner, Safer, Healthier Florida. The Ideas cover the following issues:

#70 – Florida should implement a voluntary statewide incentive program for energy efficiency.

#71 – Florida should create an Energy Efficiency Fund to offer loans to public schools, public hospitals, cities, counties, special districts, and public care institutions.

#72 – Florida should provide tax incentives to encourage homeowners and businesses to purchase energy-efficient heating, ventilation, air-conditioning, lighting, solar products, advanced metering of energy usage, windows, insulation, zone heating products, and weatherization.

#73 – Florida will work to build energy efficient buildings that meet environmental standards and save taxpayers money.

#75 – Florida should strive to lead the nation in fostering the development and use of alternative energy sources and ethanol production.

#76 – Florida should offer additional incentives for clean alternative-fueled vehicles and hybrid passenger vehicles.

Background Information

With recent increases in the price of gas and other energy costs, Florida's citizens are keenly aware of the nation's energy problem. Florida's economy and quality of life depend on a

¹ Rubio, Marco, *100 Innovative Ideas for Florida's Future*, A Plan of Action, Regnery Publishing, Inc., www.100ideas.org.

secure, adequate and reliable supply of energy. As the fourth most populous state, Florida ranks third nationally in total energy consumption. With more than 17 million citizens and nearly 1,000 new residents arriving daily, Florida is one of the fastest growing states in the nation. As Florida's population continues to grow, so too does its demand for energy. Florida's need for electrical generation is predicted to grow by approximately 30 percent over the next ten years, while the demand for gasoline is expected to grow from the current level of more than 28 million gallons per day to 32.3 million gallons per day during the next decade.²

Since the last review of Florida's energy policy in 2000, several unpredictable events have heightened concern over energy reliability, security, and supply. The 2003 blackout in the northeast, along with devastating back-to-back hurricane seasons in 2004 and 2005, demonstrated the impact power outages and fuel interruptions have on the nation's economic welfare.³

Producing less than one percent of the energy it consumes and limited by its geography, Florida is more susceptible to interruptions in energy supply than any other state. Unlike other states that rely on petroleum pipelines for fuel delivery, more than 98 percent of Florida's transportation fuel arrives by sea. The state's reliance on imported petroleum products, in addition to its anticipated growth in consumption, underscores its vulnerability to fluctuations in the market and interruptions in fuel production, supply and delivery.⁴

To generate electricity, Florida primarily relies on natural gas, coal and oil imports. Together, fossil fuels represent 86 percent of Florida's total generating capacity. Less than 10 percent of its generating capacity is derived from cleaner nuclear and renewable fuels. In fact, no new nuclear plants have entered service in Florida since 1983. Current forecasts indicate that new generation capacity will be 80 percent natural gas-fired and 19 percent coal-fired. Meeting these projections could prove expensive at today's prices and lead to an over-reliance on one fuel type, affecting the reliability of electric utility generation supply in Florida. While expansions for natural gas capacity are needed and already underway, improving generation fuel diversity would enhance reliability over the long-term. Too great a reliance on a single fuel source leaves Floridians subject to the risks of price volatility and supply interruption.⁵

Alternative Energy Sources

Beyond increasing domestic production of traditional fossil fuel energy sources, fostering the development of alternative energy sources is a policy option available to both the state and federal governments. Long-term concerns over the limited supply of fossil fuels and more immediate concerns over the instability of the supply and prices of such fuels have combined with environmental concerns to prompt some leaders to consider alternative sources of energy.

Unlike fossil fuels, certain types of energy are nearly inexhaustible and do not directly produce harmful emissions. Such fuels are considered renewable because they are replaced rapidly by a natural process such as the sun or the wind. Although most renewable energy comes from short-term solar-energy storage such as rainfall, it can also be accumulated over a period of months, as in straw or hay, or through many years as in trees or wood. A fundamental advantage of renewable energy sources is that they do not permanently deplete resources.

² *Florida's Energy Plan*, January 17, 2006, Department of Environmental Protection, page 7.

³ Id.

⁴ Id.

⁵ Id.

Fossil fuels are renewable, but only on a very long time-scale, and are consumed at a higher rate than it takes to replenish them.

Section 377.803, F.S., defines renewable energy technology as any technology that generates or utilizes a renewable energy resource, defined to include electrical, mechanical, or thermal energy produced from a method that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power.

Alternative Fuel Production

Ethanol

The main biofuels available in the United States today are ethanol and biodiesel. In the United States, ethanol is largely a corn-based fuel ranging from E10, a 10 percent gasoline additive (used to reduce vehicle emissions that works without engine modifications), to E85 that contains just 15 percent gasoline and 85 percent ethanol (used to power flexible fuel vehicles that can run on any kind of fuel). While the United States uses corn to produce ethanol, Brazil, using sugar cane, is the world's largest ethanol producer -- contributing nearly 40 percent of the global supply -- and boasts the world's largest ethanol market. The industry is self-sustaining, no longer in need of tax subsidies. Cellulosic ethanol is a variation that uses cornhusks and other crop wastes as feedstock (or the raw materials needed to produce biofuels).⁶

Biodiesel

Biodiesel is a clean-burning alternative fuel made primarily from soybeans. It can also be made from other materials such as vegetable oils, animal fats and spent cooking oils. The pure form of biodiesel is commonly referred to as B100. The most common blend for biodiesel, B20, is 20 percent biodiesel and 80 percent petroleum diesel.⁷ According to the U.S. Environmental Protection Agency, biodiesel is less toxic than table salt and more biodegradable than sugar. It has none of the toxic or environmental hazards of fossil diesel fuel. Biodiesel operates in conventional combustion-ignition engines, from light to heavy-duty, just like petroleum-based diesel. No engine modifications are required, and biodiesel maintains the payload capacity and range of diesel.⁸

In 2004, alternative fuels accounted for 1.2 percent (2,111 thousand gasoline-equivalent gallons) of the total market for transportation fuels (177,562 thousand gasoline-equivalent gallons). Although a relatively small percentage of the total transportation fuel market, biofuels consumption has increased rapidly in recent years. In 1994, biofuels consumption stood at 846 thousand gasoline-equivalent gallons or 0.6 percent of the transportation (140,719 thousand gasoline-equivalent gallons) fuels market. Increased production of biofuels as well as increases in the number of fueling stations which provide biobased fuels are due to federal and state incentives that encourage the use of alternative fuel or flex-fuel cars as well as increased public education and awareness.⁹

⁶ http://www.ncsl.org/legis/pubs/SLmag/2006/06SLJun06_BioFuels.htm

⁷ http://www.ncsl.org/legis/pubs/SLmag/2006/06SLJun06_BioFuels.htm

⁸ <http://www.biomass.govtools.us/news/DisplayRecentArticle.asp?idarticle=227>.

⁹ <http://www.biomass.govtools.us/news/DisplayRecentArticle.asp?idarticle=227>.

Biofuel Initiatives

As a June 2006 article in the NCSL *State Legislatures Magazine* declared:¹⁰

The allure of biofuels in the United States is a result of policies aimed at reducing the country's dependence on imported oil, while at the same time reducing emissions of air pollutants. Both the federal government, through the Energy Policy Act of 2005, and the states, through a multitude of tax incentives and fuel mandates, are driving the increased production and use of biofuels across the country.

State Initiatives – Incentives vs. Mandates

In addition to federal initiatives promoting the production and use of biofuels, numerous states also have enacted policies to promote their development. Two options are available to promote biofuels production: incentives and mandates. States have experimented with both options. Some states have initially tried incentives, only to switch to fuel mandates as a more effective method to support in-state production of ethanol or biodiesel. Washington State is the second state, after Minnesota, to adopt a biofuels mandate. Washington requires that by 2008 two percent of all diesel fuel sold in the state be biodiesel and 2 percent of all gasoline be ethanol. Once the state's agriculture community determines that the state can provide the biomass feedstock, that requirement jumps to 5 percent. In addition to the legislative mandate, an executive order requires all state fleets to use 20 percent biofuels by 2009.¹¹

Some states appear to have been successful with tax incentives to encourage production of biofuels. Oklahoma offers a tax credit of 20 cents per gallon for biodiesel production facilities. Producers get credit for a facility production rate of 25 million gallons annually, or 125 million gallons over the five-year lifespan of the 2005 incentive.¹²

Barriers to Alternative Energy Sources

To be a viable alternative energy source, a biofuel should provide a net energy gain, have environmental benefits, be economically competitive, and be producible in large quantities without reducing food supplies.

The exact amount of energy required to grow crops varies widely, since a number of modern farming methods can significantly reduce the amount of energy that must be used. It also is difficult to account for all energy inputs to biofuels. Opponents of corn ethanol production in the U.S. often quote the work of David Pimentel and Tadeusz Patzek. Both have been critical of ethanol and other biofuels. Their studies contend that ethanol, and biofuels in general, are "energy negative," meaning they take more energy to produce than is contained in the final product. However, this does not appear to be the consensus opinion among scientists. A report by the U.S. Department Agriculture compared the methodologies used by a number of researchers on this subject and found that the majority of researchers think the energy balance for ethanol is positive. In fact, a large number of recent studies, including an article in the journal *Science* offer the consensus opinion that fuels like ethanol are energy positive. According to information from the American Council for Ethanol, "ethanol has a 125 percent positive energy balance, compared to 85 percent for gasoline."¹³

¹⁰ http://www.ncsl.org/legis/pubs/SLmag/2006/06SLJun06_BioFuels.htm.

¹¹ http://www.ncsl.org/legis/pubs/SLmag/2006/06SLJun06_BioFuels.htm.

¹² Id.

¹³ <http://www.biomass.govtools.us/news/DisplayRecentArticle.asp?idarticle=227>.

Using these criteria listed above – net energy gain, environmental benefits, and economic competitiveness -- a recent study published in the Proceedings of the National Academy of Sciences evaluated ethanol from corn grain and biodiesel from soybeans. The study found that ethanol yields 25% more energy than the energy invested in its production, whereas biodiesel yields 93% more. Compared with ethanol, biodiesel releases just 1.0%, 8.3%, and 13% of the agricultural nitrogen, phosphorus, and pesticide pollutants, respectively, per net energy gain. Relative to the fossil fuels they displace, greenhouse gas emissions are reduced 12% by the production and combustion of ethanol and 41% by biodiesel. Biodiesel also releases less air pollutants per net energy gain than ethanol. These advantages of biodiesel over ethanol come from lower agricultural inputs and more efficient conversion of feedstocks to fuel. The study concluded that neither biofuel can replace much petroleum without impacting food supplies. Even dedicating all U.S. corn and soybean production to biofuels would meet only 12% of gasoline demand and 6% of diesel demand. In addition, until recent increases in petroleum prices, high production costs made biofuels unprofitable without subsidies. The study concludes that biodiesel provides sufficient environmental advantages to merit subsidy, and finds that transportation biofuels such as synfuel hydrocarbons or cellulosic ethanol, if produced from low-input biomass grown on agriculturally marginal land or from waste biomass, could provide much greater supplies and environmental benefits than food-based biofuels.¹⁴

Earlier studies have also examined whether manufacturing ethanol takes more nonrenewable energy than the resulting fuel provides and the environmental impacts of ethanol. According to a study published in *Science*, the impact of a switch from gasoline to ethanol has an ambiguous effect on greenhouse gas emissions, with the reported values ranging from a 20% increase to a decrease of 32%. These values have their bases in the same system boundaries, but some of them rely on data of dubious quality. The study estimates that corn ethanol reduces petroleum use by about 95% on an energetic basis and reduces green house gas emissions only moderately, by about 13%. The study notes that given adequate policy incentives, the performance of corn ethanol in terms of green house gas emissions can likely be improved. However, the study concludes that current data suggest that only cellulosic ethanol offers large reductions in green house gas emissions.¹⁵

Potential impacts on the nation's food supply may pose a barrier to significant increases in the production of biofuels. For instance, earlier this year, the U.S. Department of Agriculture projected that 20 percent of the corn crop that will go on the market this September will go into ethanol. U.S. corn exports are expected to rise to 2 billion bushels in 2006-07, while ethanol production is estimated to use 2.15 billion bushels. Using farm products for energy could change the availability of food supplies, and in the future, instability of energy prices could be translated into instability in food prices." However, in the United States, the federal government is paying farmers not to grow crops on 35 million acres in order to prop up the value of corn. According to the U.S. Department of Agriculture, much of that land could come back into production to meet the demand for both food and fuels.¹⁶

In addition to energy efficiency and environmental and food supply concerns, barriers to increased production and use of biofuels include the lack of infrastructure to produce and distribute biofuels, the cost of converting engines to use some types of biofuels, and the costs of converting biomass into biofuels. Most biofuel production is in the Midwest, far away from

¹⁴ Hill, Jason, Nelson, Erik, Tilman, David, Polasky, Stephen, and Tiffany, Douglas (2006) *PNAS* 103, 11206-11210.

¹⁵ Farrell, Alexander E., Plevin, Richard J., Turner, Brian T., Jones, Andrew D., O'Hare, Michael, Kammen, Daniel M., "Ethanol Can Contribute to Energy and Environmental Goals", *Science*, 311, 506-508.

¹⁶ http://www.ncsl.org/legis/pubs/SLmag/2006/06SLJun06_BioFuels.htm.

urban centers and existing transportation fuels pipelines. Institutional, technical, and logistical issues with utilizing the existing petroleum infrastructure must be overcome.¹⁷

One of the secrets to Brazil's successful ethanol market is the country's automobile industry. In 2003, Brazilian automakers began producing "flex-fuel" cars capable of running on ethanol, gasoline or a mix of the two. More than 70 percent of the cars sold in Brazil, reaching 1.1 million in 2006, have flex fuel engines. According to recent published reports, American automakers are pledging to double by 2010 the number of vehicles they make that are capable of running on either gasoline or corn-based ethanol. Ford, General Motors and DaimlerChrysler will make 1 million of the dual-fuel cars and trucks this year. "Our hope is that with this commitment, fuel providers will have even more incentive to produce ethanol and other biofuels and install pumps to distribute them," executives of the automakers said recently in a joint letter to members of Congress. The automakers have been under pressure from some lawmakers to increase production of dual-fuel vehicles to bolster the future market for ethanol. Sen. Tom Harkin, D-La., is co-sponsoring legislation that would require all new cars and trucks to be dual-fuel capable within 10 years. But E85 is hard to find even for motorists who want to use it. Only 700 of the 170,000 gas stations nationwide have E85 pumps.¹⁸

The recent development of cheaper, more efficient enzymes has made it practical to break down cellulose into sugars that can be fermented into ethanol. This development may open a significant new market for agricultural resources now considered wastes (such as wheat straw and corn stover), as well as perennial grasses. The crop most studied for this purpose in the United States is switchgrass, a native perennial prairie grass. The environmental benefits of cellulose conversion are quite dramatic. For example, a conventional engine operating on cellulosic ethanol produces fewer net global warming emissions than a fuel cell that uses hydrogen derived from natural gas.¹⁹

The conversion of cellulose will increase the amount of ethanol that can be produced from grain and cane because more of the plant will be used. It also makes possible the use of nonfood crops for industrial applications. Studies by Battelle Memorial Institute and Oak Ridge National Laboratory have found that 50 billion gallons of cellulosic ethanol could be produced from available land without a significant disturbance to the agricultural economy. Due to the fact that ethanol has less energy content per gallon than gasoline, this is equivalent to about one quarter of current U.S. gasoline consumption of 140 billion gallons a year.²⁰

Looking to the future, the environmental implications of ethanol production are likely to grow more important, and there is a need for more analysis to inform policy decisions. In addition, future analysis of fuel ethanol should more carefully evaluate ethanol production from cellulosic feedstocks because cellulosic ethanol production is undergoing major technological development and the cultivation of cellulosic feedstocks is not as far advanced as corn agriculture, suggesting more potential for improvement. Such advances may enable biomass energy to contribute a sizeable fraction of the nation's transportation energy, as some studies have suggested.²¹

¹⁷ http://www.biomass.govtools.us/news/DisplayRecent_Article.asp?idarticle=227.

¹⁸ Brasher, Philip, "Automakers vow to raise dual-fuel car production," *Des Moines Register*, June 29, 2006.

¹⁹ http://www.ncsl.org/legis/pubs/SLmag/2006/06SLJun06_BioFuels.htm.

²⁰ Id.

²¹ Farrell, Alexander E., Plevin, Richard J., Turner, Brian T., Jones, Andrew D., O'Hare, Michael, Kammen, Daniel M., "Ethanol Can Contribute to Energy and Environmental Goals", *Science*, 311, 506-508.

The Federal Energy Policy Act of 2005

The Federal Energy Policy Act of 2005 (Act) was the first effort of the United States government to address U.S. energy policy since the Energy Policy Act of 1992. The Act was intended to establish a comprehensive, long-range energy policy. It provided incentives for traditional energy production as well as newer, more efficient energy technologies, and conservation. The Act has hundreds of provisions. Major items addressing alternative energy include:

- Provides a tax credit of up to \$3,400 for owners of hybrid vehicles;
- Authorizes loan guarantees for "innovative technologies" that avoid greenhouse gases, which might include advanced nuclear reactor designs as well as clean coal and renewable energy;
- Increases the amount of biofuel (usually ethanol) that must be mixed with gasoline sold in the United States to triple the current requirement (7.5 billion gallons by 2012);
- Authorizes subsidies for wind energy, and other alternative energy producers;
- Adds ocean energy sources including wave power and tidal power for the first time as separately identified renewable technologies;
- Authorizes \$50 million annually over the life of the Act for a biomass grant program;
- Contains several provisions aimed at making geothermal energy more competitive with fossil fuels in generating electricity;
- Requires the Department of Energy to study and report on existing natural energy resources including wind, solar, waves, and tides;
- Provides tax credits to individuals for residential solar energy systems;
- Provides tax credits for residential fuel cell systems; and
- Provides tax credits for fuel cell and microturbines used in a business.

As part of the Federal Energy Policy Act of 2005, Congress authorized loan guarantees and capital assistance for the construction of commercial biofuels facilities using advanced production technology as well as increases in spending on research and development. All together, Congress provided the authority to spend over half a billion dollars a year on biofuel development. Congress appropriated \$90 million for research on biofuels, including research into enzymes and yeast that can break down materials including wood chips and "switch grass" for the purpose of manufacturing ethanol. For the next fiscal year, President Bush requested \$150 million for such research.²²

During the 2006-2007 fiscal year, the Federal government provided for the following:

- A partial federal excise tax exemption of 51 cents per gallon for ethanol blended into gasoline (petroleum blenders – not corn farmers – receive this tax credit);
- An excise tax credit for biodiesel and biodiesel blends of a penny per percentage point of biodiesel blended with petroleum diesel for "agri-biodiesel," such as that made from soybean oil, and a half-penny per percentage for biodiesel made from other sources, like recycled cooking oil;
- A 30 percent tax credit, enacted in the Energy Policy Act of 2005, for the cost of installing clean-fuel vehicle refueling property. Clean fuels include biodiesel blends of 20 percent or more renewable oils, as well as ethanol and hydrogen.

²² http://wsjclassroom.com/archive/06apr/econ1_ethanol.htm

The Federal Energy Policy Act included a 30 percent federal tax credit to fueling stations that add E85 or similar fuels to their offerings. It also established the first-ever renewable fuels standard in federal law. The Act required that at least 4 billion gallons of ethanol and biodiesel be used in 2006 increasing annually to at least 7.5 billion gallons in 2012-- with an annual increase of approximately 700 million gallons per year.²³

Attempting to build on the 2005 federal energy legislation, farm leaders allied with the Energy Future Coalition endorsed a new initiative, know as "25 by '25." A bipartisan group of lawmakers, industry leaders, including three Detroit automakers, farm groups, governors, county officials, and environmentalists launched the effort to have the nation obtain 25 percent of its total energy from renewable sources by 2025.²⁴ This proposal goes well beyond the goals of the 2005 energy legislation. Achieving the goal will require that agriculture provide a portion of the 25 percent of the total energy consumed in the United States by 2025 while continuing to produce abundant, safe and affordable food and fiber. The goal of securing one-fourth of the nation's total energy from renewable sources such as wind, solar, biomass, and biogas by 2025 was introduced in June 2006 as a concurrent resolution in both houses of Congress.

2005 Florida Executive Energy Initiative

In response to these and similar concerns, on November 10, 2005, Governor Jeb Bush issued Executive Order #05-241 directing the Department of Environmental Protection (DEP) to develop a comprehensive energy plan. On December 14, 2005, the Secretary of DEP hosted the Florida Energy Forum where various parties were able to provide input in developing the plan. As required by the Executive Order, DEP issued the Florida Energy Plan on January 17, 2005.

The energy plan contained recommendations that spanned several areas. The recommendations included, but were not limited to:

- Streamlining and expediting the siting and permitting of generation resources by revising the provisions of the Florida Electrical Power Plant Siting Act.
- Streamlining and expediting the siting and permitting of electrical transmission and distribution resources by revising the provisions of the Transmission Line Siting Act.
- Incorporating the siting of substations into the Transmission Line Siting Act.
- Promoting fuel diversity, fuel supply reliability and energy security.
- Facilitating additional fuel delivery mechanisms in Florida for power generation.
- Establishing an energy commission to provide policy advice and counsel to the Governor, Speaker of the House of Representatives, and President of the Senate.
- Expediting state performance contracting with energy service companies.
- Promoting awareness of energy conservation and alternative energy technologies.
- Providing grant funding for research and demonstration projects associated with the development and implementation of renewable energy systems.
- Expanding solar, hydrogen, biomass, wind, ocean current and other emerging technologies.
- Identifying alternative energy production and distribution industries as Qualified Target Industries.

²³ http://www.ncsl.org/legis/pubs/SLmag/2006/06SLJun06_BioFuels.htm

²⁴ The Florida Commissioner of Agriculture has initiated a "25X'25" proposal with similar objectives as stated above.

- Providing consumer rebates for purchases of energy efficient ENERGY STAR™ appliances.
- Providing sales and corporate tax incentives for the manufacture, purchase, and use of fuel cells for supplemental and backup power.
- Facilitating additional and diverse petroleum supply and distribution mechanisms into and within Florida.
- Encouraging fueling stations to cooperatively adopt a system modeled after the Florida WARN System to facilitate the relocation and use of generators to reestablish service.
- Providing grant funding for applied research and demonstration projects associated with the development and implementation of alternative fuel vehicles and other emerging technologies.
- Providing sales and corporate income tax credits for hydrogen vehicles and fueling infrastructure.
- Providing corporate, sales, and income tax incentives to improve production, develop distribution infrastructure, and increase availability of clean fuels, including biodiesel and ethanol.

2006 Legislative Energy Initiative (CS/CS/CS/SB 888, chapter 2006-230, Laws of Florida)

During the 2006 Legislative Session, the Legislature enacted and the Governor signed CS/CS/CS/SB 888 into law (chapter 2006-230, L.O.F). The following provides a description of several of the changes and an update of the implementation of the provisions:

Update of the Florida Energy Commission

The bill created a nine-member Florida Energy Commission appointed by the President of the Senate and Speaker of the House of Representatives to develop recommendations for legislation to establish a state energy policy based on specified principles. The commission is located within the Office of Legislative Services. Each member must be an expert in one or more specified fields and must disclose specified financial or employment interests. The commission is to file an annual report by December 31 of each year, beginning in 2007. The first report must:

- Identify incentives for alternative energy research, development, or deployment projects;
- Set forth policy recommendations for conservation of all forms of energy;
- Recommend consensus-based public-involvement processes that evaluate greenhouse gas emissions in this state and make recommendations regarding related economic, energy, and environmental benefits;
- Include recommended steps and a schedule for the development of a comprehensive state climate action plan with greenhouse gas reduction through a public-involvement process, including transportation and land use; power generation; residential, commercial, and industrial activities; waste management; agriculture and forestry; emissions-reporting systems; and public education; and
- Set forth a plan of action, together with a timetable, for addressing additional issues.

Leadership by Example Report

The bill required the Department of Environmental Protection to provide to the Governor, the President of the Senate, and the Speaker of the House of Representatives, by November 1, 2006, a report detailing the state's leadership by example in energy conservation and energy

efficiency. The report was submitted to the Legislature on November 21, 2006, and includes a description of state programs designed to achieve energy conservation and energy efficiency at state-owned facilities, such as the guaranteed energy performance savings contracting and the inclusion of alternative fuel vehicles in state fleets. The report describes the costs of implementation, details of the programs, and current and projected energy and cost savings. The report also sets forth recommendations on a rebate program for purchases of energy-efficient appliances.

Sales Tax Exemption

Included in the legislation is a renewable energy technology sales tax exemption. This program uses tax incentives to further stimulate development of hydrogen technology and biofuels in the state. A sales tax exemption is created for sale or use of hydrogen energy technologies, including fueling stations and vehicles, capped at \$2 million; hydrogen fuel cells, capped at \$1 million total, and \$12,000 per fuel cell; and biofuels, including biodiesel and ethanol, capped at \$1 million, from June 30, 2006, through July 1, 2010. Program requirements are addressed by the legislation. DEP administers the program in conjunction with the Department of Revenue (DOR).

Corporate Income Tax Credit

A corporate income tax credit program is created for any investments associated with hydrogen vehicles and hydrogen vehicle fueling stations; commercial stationary fuel cells; and biofuels, including biodiesel and ethanol; including construction, installation, and equipping the technologies in the state. The program runs from July 1, 2006 through June 30, 2010. The credit for stationary fuel cells, hydrogen vehicles and hydrogen vehicle fueling stations will be for 75% of the capital, operational, maintenance, research and development costs. The cap for hydrogen vehicles and hydrogen vehicle fueling stations is \$3 million per fiscal year. The cap for the corporate tax credit on stationary fuel cells is \$1.5 million per fiscal year. The cap for an investment in the production and distribution of biodiesel and fuel ethanol is \$6.5 million per fiscal year. An application process is provided in the legislation. DEP and DOR administer the program jointly.

A corporate income tax credit program is also established for renewable energy production. The credit is available to new or expanded facilities placed in service after May 1, 2006. The credit is 1 cent per kilowatt-hour, capped at \$5 million dollars per fiscal year, between January 1, 2007 and June 30, 2010.

Fiscal Impact of CS/CS/CS/SB 888

The Revenue Estimating Conference estimated that the provisions of the bill relating to the Energy-Efficient Products Sales Tax Holiday, the sales tax exemptions for renewable energy technologies, and the corporate income tax credits, would result in a negative fiscal impact of \$11.0 million to state government and \$1.2 million to local governments in FY 2006-07. The bill appropriated \$61,379 to the Department of Revenue to administer the sales tax holiday. For the Renewable Energy Grants Program, the bill appropriated \$15 million (\$8.6 million from General Revenue and \$6.4 million from the Grants and Donations Trust Fund) with \$5 million contingent upon coordination between the Department of Environmental Protection and the Department of Agriculture and Consumer Services. The bill appropriated \$2.5 million from General Revenue to fund the solar incentives program. The fiscal impact for the renewable energy production credit is limited to \$5 million per year.

PRESENT SITUATION

Property Tax Exemption for Real Property with Renewable Energy Source Device Installed (Section 1)

Section 3(d), Article VII, Florida Constitution, provides the following:

By general law and subject to conditions specified therein, there may be granted an ad valorem tax exemption to a renewable energy source device and to real property on which such device is installed and operated, to the value fixed by general law not to exceed the original cost of the device, and for the period of time fixed by general law not to exceed ten years.

In 1980, the Legislature authorized a property tax exemption for real property on which a renewable energy source device is installed and is being operated. However, the exemption expired after 10 years. Specifically, the exemption period authorized in statute was from January 1, 1980 through December 31, 1990. Therefore, if an exemption was granted in December 1990, the exemption terminated in December 2000. The law required that the exemption could be no more than the lesser of the following:

- The assessed value of the property less any other exemptions applicable under the chapter;
- The original cost of the device, including the installation costs, but excluding the cost of replacing previously existing property removed or improved in the course of the installation; or
- Eight percent of the assessed value of the property immediately following the installation.

The Florida Solar Energy Industries Association (Association) reports that the current options are cumbersome and that property owners who are adding solar energy systems are having their property taxes raised for those improvements. The Association notes that by allowing the exemption to expire, “[h]omeowners who have installed solar energy systems on their property have the unforeseen dilemma of a property tax liability that diminishes the savings generated by these systems” and “discourages buyers who are willing to make such an investment in a clean energy future.”

Sales Tax Exemption for Biofuel (Section 2)

CS/CS/CS/SB 888 provides a sales tax exemption for materials used in the manufacturing, blending, fueling and distribution of biodiesel and ethanol fuels. There is a cap of \$1 million per fiscal year for the next three years.

Energy Efficient Motor Vehicle Sales Tax Refund Program (Section 3)

Section 212.08(7)(ccc), F.S., provides for the refund of sales taxes on hydrogen-powered motor vehicles. Currently, the statutes do not provide for any other type of refund of sales taxes paid on alternative motor vehicles.

Renewable Energy Technologies Investment Tax Credit (Section 4)

CS/CS/CS/SB created s. 220.192, F.S., which established a corporate income tax credit program for any investments associated with hydrogen vehicles and hydrogen vehicle fueling stations; commercial stationary fuel cells; and biofuels, including biodiesel and ethanol; including construction, installation, and equipping the technologies in the state. The program runs from July 1, 2006 through June 30, 2010. The bill provided the following:

- ✓ The credit for stationary fuel cells, hydrogen vehicles and hydrogen vehicle fueling stations will be for 75% of the capital, operational, maintenance, research and development costs;
- ✓ The cap for hydrogen vehicles and hydrogen vehicle fueling stations is \$3 million per fiscal year;
- ✓ The cap for the corporate tax credit on stationary fuel cells is \$1.5 million per fiscal year; and
- ✓ The cap for an investment in the production and distribution of biodiesel and fuel ethanol is \$6.5 million per fiscal year.

DEP and DOR administer the program jointly. DEP approves the credit upon application, and tax returns are filed with DOR with the credit attached.

Florida Renewable Energy Production Credit (Section 5)

CS/CS/CS/SB 888 created the Florida Renewable Energy Production Credit to encourage the development and expansion of facilities that produce renewable energy in Florida. The credit is available to new or expanded (increases its electrical production by more than 5 percent) facilities placed in service after May 1, 2006. A credit against the tax imposed by this chapter is available to a taxpayer, based on the taxpayer's production and sale of electricity. For a new facility, the credit is based on the taxpayer's sale of the facility's entire electrical and for an expanded facility, the credit is based on the increases in the facility's electrical production that are achieved after May 1, 2006.

The credit is \$0.01 for each kilowatt-hour of electricity produced and sold by the taxpayer to an unrelated party during a given tax year and the credit may be claimed for electricity produced and sold on or after January 1, 2007. Ten years is the maximum for which this credit may be claimed beginning the first tax year the credit is earned and the. The program is capped at 5 million dollars per fiscal year, between January 1, 2007 and June 30, 2010.

“Green Buildings” – Energy Efficient Building Standards for State, County, Municipal and Public Community Colleges (Sections 6-10 and 35)

The Leadership in Energy and Environmental Design (LEEDs) program was developed by the United States Green Building Council (USGBC).²⁵ The LEEDs program is intended to reduce energy consumption, reduce energy costs, provide for sustainable development, create water savings, and improve indoor environment quality. The LEEDs program uses a Green Building Rating system to evaluate buildings for their consideration of these factors, and then scores them to determine if they meet or exceed LEEDs conservation goals. Buildings that meet the

²⁵ United States Green Building Council, <http://www.usgbc.org/>

minimum LEEDs standards are placed in one of four categories: “certified,” “silver,” “gold,” and “platinum,” with platinum being the highest building standard and “certified” being the lowest.²⁶

A number of other programs to promote the creation of green buildings have also been developed. These programs include The Florida Green Building Coalition and the Green Building Initiative’s Green Globes program.²⁷ Similar to the USGBC LEEDs program, the Florida Green Building Coalition, and the Green Globes programs use a checklist to rate buildings on their efficiency levels.²⁸ Also, much like the USGBC LEEDs program, Florida Green Building Coalition evaluates buildings in a variety of categories.²⁹ These categories include energy, water, lot choice/site, health, materials, disaster mitigation, and other general measures.³⁰ Meanwhile, the Green Globes rating system focuses more on the energy use of the buildings that it evaluates.³¹

Currently, there are very few, if any, government buildings in Florida that meet LEEDs standards.³² Three state agency buildings that are in development are expected be the first LEEDs certified buildings in the state.³³ However, several local communities in Florida are showing interest in creating a higher standard of conservation for new buildings. Particularly, Sarasota County has enacted ordinances encouraging builders to achieve a higher standard of conservation and efficiency in building design than is currently required under the Florida Building Code.³⁴

Many cities, counties, school districts, and colleges are constructing or upgrading their facilities to meet energy efficiency standards through the Guaranteed Energy Performance Savings Contracting Program. These contracts are meant to encourage Florida public entities to finance facility energy conservation measures with the energy cost savings received by those measures. If the energy savings received do not cover the cost of the energy conservation measures, the contractor must cover the cost of any shortfalls in payment. As a result, the energy conservation measures encourage the upgrade of public facilities without requiring increased investment from taxpayers.³⁵

Guaranteed Energy Performance Savings Contracting (Sections 11 and 29)

Idea #71 of the “100 Ideas” was originally meant for the creation of a loan fund to encourage energy efficiency in public buildings while also cutting utility costs.³⁶ Research indicated that the objectives of the Idea were already in place and being implemented by local governments, school district, the Department of Management Services, and the Department of Financial Services in the form of the Guaranteed Energy Performance Savings Contract Act (GEPSCA).³⁷

²⁶ Id.

²⁷ The Green Building Initiative, www.thegbi.com, and The Florida Green Building Coalition, www.floridagreenbuilding.org.

²⁸ Id.

²⁹ The Florida Green Building Coalition, www.floridagreenbuilding.org.

³⁰ The Florida Green Building Coalition, www.floridagreenbuilding.org. Also see “Sarasota County, Planning & Development Services: Florida Green Home Standard Checklist.”

³¹ The Green Building Initiative, www.thegbi.com.

³² Conversation with Clint Sibille of DMS, February 27, 2007. But also see <http://www.fundinggreenbuildings.com/documents/OnlineMapBrochure.pdf>.

³³ Id.

³⁴ Resolutions No. 2005-648 and 2006-174 of the Board of County Commissioners of Sarasota County, Florida.

³⁵ Id.

³⁶ Marco Rubio, *100 Innovative Ideas for Florida’s Future*, Regnery Publishing, Inc. pg. 108 (2006).

³⁷ Section 485.145, F.S.

In a Guaranteed Energy Performance Contract, the state and other public entities may contract with a Guaranteed Energy Performance Savings Contractor (ESCO) for energy conservation measures. These energy conservation measures must produce a utility savings sufficient to cover the cost of financing, completing, and maintaining the GEPSCA contract. To accomplish this, the ESCO guarantees that the public entity will achieve a utility savings sufficient to finance the proposed energy conservation measures. Further, repayment of the energy conservation measures may not exceed twenty years in length. If the utility savings are not sufficient to cover each individual financing payment, the ESCO must pay for the shortfall. Further, before a state agency may enter into a GEPSCA contract, the agency must submit the project to the Department of Management Services (DMS) for technical review and to the Chief Financial Officer (CFO) for financing approval.³⁸

The GEPSCA program was first created in 1994 as s. 489.145, Florida Statutes. However, in the original form, the GEPSCA did not clearly allow state agencies to finance Guaranteed Energy Performance Contracts through third party financing.³⁹ This often caused difficulties as many of the contractors who were interested in the contracts did not have the resources or experience to finance the projects on their own. To fix these problems, the GEPSCA was amended in 2001 to allow for third party financing of Guaranteed Energy Performance Contracts.⁴⁰

The GEPSCA was amended a second time in 2003 to encourage the Chief Financial Officer, with assistance from the DMS, to create a model GEPSCA contract.⁴¹ A model contract was produced recently thereafter.

Currently, while a number of other public entities, especially local governmental entities, have entered into GEPSCA contracts, only a few state agencies have used a GEPSCA contract since the act's creation in 1994.⁴² When the contracts are submitted, the CFO frequently has concerns about the financing and the substance of these contracts.⁴³ These concerns include: financing where loan payments increase over the life of the contract; contracts where the full costs of the improvement are not included in the guarantee; deviations from the model contract; and improvements that do not have an obvious cost savings or are unrelated to reducing energy consumption. Further, state agencies rarely use the state's line of credit under the state's Deferred Payment Commodity Contracts and Consolidated Financing of Deferred-Payment Purchases⁴⁴ programs because these programs only allow for ten years of project financing instead of the twenty years authorized for GEPSCA contracts. Finally, ESCOs are not commonly using the GEPSCA Model Contract that has been developed. Because of these concerns, the CFO is reluctant to approve many of these contracts and state agencies are not making significant use of the GEPSCA.⁴⁵

“Energy Efficiency and Conservation Month” (Section 12)

Present law does not recognize a specific time of the year to promote energy efficiency and conservation of the state's resources.

³⁸ Id.

³⁹ Conversation with Mike Crowley of the Chief Financial Officer's Department of Financial Services, March 16, 2007. Also see Conversation with Doug Darling of the Chief Financial Officer's Department of Management Services, March 16, 2007.

⁴⁰ Id.

⁴¹ Id.

⁴² Conversation with Clint Sibille of DMS, February 19, 2007. See also <http://fcn.state.fl.us/fdi/edesign/news/9709/thorpe.htm>.

⁴³ Conversation with Clint Sibille, et al. of DMS and Doug Darling, et al. of CFO, February 27, 2007.

⁴⁴ Sections 287.063 and 287.064, F.S.

⁴⁵ Id.

Solar Energy System Incentives Program (Sections 13 and 15)

In 2006, the Legislature created a solar energy system rebate program in the Department of Environmental Protection to provide financial incentives for the purchase and installation of solar energy systems. Specifically, from July 1, 2006, through June 30, 2010, any state resident who purchases and installs a new solar energy system of 2 kilowatts or larger for a solar photovoltaic system; a solar energy system that provides at least 50 percent of a building's hot water consumption for a solar thermal system; or a solar thermal pool heater is eligible for a rebate on a portion of the purchase price of that system. Applications for rebates must be made within 90 days of the purchase.

The total amount of the rebates is limited each year by the total appropriation for that fiscal year. The 2006 Legislature appropriated \$2.5 million to fund the program. If funds are insufficient in a given year, rebate requests may be processed, and take priority, during the following fiscal year.

The program provides the following incentives:

- ✓ A rebate of \$4 a watt is provided for the purchase and installation of a solar photovoltaic system of 2 kilowatts or larger on a home or business. The rebate is capped at \$20,000 for a residence and \$100,000 for a place of business, a publicly owned or operated facility, or a facility owned or operated by a private, not-for-profit organization.
- ✓ A rebate of \$500 is provided for the purchase and installation of a solar thermal water heater per residence. Businesses, publicly owned or operated facilities, or facilities owned or operated by private, not-for-profit organizations that have a commercial-sized system are to be paid \$15 per 1000 Btus produced, as verified through an approved metering device. The maximum allowable rebate is \$5,000.
- ✓ A rebate of \$100 is provided for the purchase and installation of a solar thermal pool heater.

Greenhouse Gas Inventories (Section 16)

The Department of Environmental Protection (DEP) does not monitor or maintain an inventory of greenhouse gases emitted to and removed from the atmosphere.

Power Plant Siting Act (Sections 17-22)

The Power Plant Siting Act (PPSA) is a centralized, coordinated licensing process encompassing the permitting, land use and zoning, and proprietary interests of all state, regional, and local agencies in the jurisdiction of which and electric power plant is proposed for location. The PPSA provides for a single certification (license) for those electric power plants, as defined by the PPSA, which are steam or solar powered, 75 megawatts or greater, and were constructed after October 1, 1973. The provisions apply to nuclear power in addition to coal, gas and waste-to-energy facilities, although regulation of nuclear radiation is preempted by the federal government. Directly-associated facilities may be certified in conjunction with the plant, including transmission lines necessary to connect the plant to the electric grid. The provisions also address procedures for incorporation of previously permitted plants into a

certification, for additions of supplemental units at previously certified plants, and modifications to certified facilities.

Transmission Line Siting Act (Sections 23-28)

The Transmission Line Siting Act (TLSA) is a centralized, coordinated licensing process encompassing permitting, land use and zoning, and proprietary interests of all state, regional, and local agencies in the jurisdiction of which a transmission line is proposed for location. The TLSA provides for a single certification (license) for transmission lines subject to the TLSA. Transmission lines subject to the TLSA are those which are 230 kilovolts or greater, 15 miles or more in length and cross a county line. Intermediary substations may also be certified as part of the project.

In CS/CS/CS/ SB 888, the Power Plant Siting Act and the Transmission Line Siting Act were significantly rewritten. This is the first year the new procedures have been implemented and some unforeseen glitches have materialized.

Farm-to-Fuel Advisory Council (Section 30)

Chapter 2006-289, Laws of Florida, authorizes the development of a “farm-to-fuel” initiative in the Department of Agriculture and Consumer Services to “enhance the market for and promote the production and distribution of renewable energy from Florida-grown crops, agricultural wastes and residues, and other biomass and to enhance the value of agricultural products or expand agribusiness in the state.”⁴⁶ The Commissioner of Agriculture has the authority to establish an advisory council to provide advice and counsel on any issue within the agency’s jurisdiction.

Renewable Energy Technologies Grants Program and Bioenergy Grants Program – Farm-to-Fuel Grants Program (Sections 14 and 31)

CS/CS/CS/SB 888 (Chapter 2006-230, Laws of Florida), created the Renewable Energy Technologies Grants Program within the Department of Environmental Protection (DEP) to provide matching grants for demonstration, commercialization, research, and development projects relating to renewable technologies. The bill defined renewable energy to include electrical, mechanical, or thermal energy produced from a method that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power. As a part of this program, the DEP was required to work with the Department of Agriculture and Consumer Services to coordinate grants for bioenergy projects.

Implementation of the Grant Programs

The Florida Legislature appropriated \$15 million for renewable energy technologies grants to stimulate capital investment in the state and promote and enhance the statewide utilization of renewable energy technologies, including ethanol and bioenergy. The Florida Energy Office (FEO) received 183 unique proposals, seeking nearly \$215 million and providing over \$505 million in cost share.

Grant proposals were evaluated by the state based on a number of different criterion, including cost share percentage, economic development potential, energy efficiency and how the project

⁴⁶ s. 570.954, F.S.

fosters public awareness of renewable energy technologies. Grants were awarded at a maximum of \$2.5 million per project, and eligible applicants included Florida municipalities and county governments, established for-profit companies licensed to do business in Florida, universities and colleges in the state, utilities located and operating within Florida, not-for-profit organizations and state agencies.

On February 22, 2007, the funding was awarded to eight organizations with at least \$5 million to support bioenergy projects and \$10 million for projects that generate or utilize other renewable energy resources, including hydrogen, biomass and solar energy.

The Renewable Energy Technologies Grant Program recipients for 2007 are as follows:

- ✓ **Citrus Energy LLC**, “Fuel Ethanol Production from Citrus Waste Biomass” (\$2.5 million): Based in Clewiston, the company will construct a four-million-gallon-per-year ethanol bio-refinery to use citrus waste to produce ethanol. This project will transform citrus waste, an abundant agricultural residual, into a clean, affordable and locally-produced biofuel.
- ✓ **Alico Inc.**, “Commercial Ethanol Production from Biomass” (\$2.5 million): The project will use biomass products to co-produce ethanol and electricity at a savings for consumers. The facility will produce ethanol for blending with gasoline at less than one-third of the current national average retail cost of gasoline, and can deliver “green” electricity at a cost of five to eight cents per kilowatt hour.
- ✓ **Losonoco Inc.**, “Losonoco Mulberry Ethanol” (\$2.5 million): Losonoco Inc. will purchase, refurbish, and operate a shuttered fuel ethanol production facility in the City of Mulberry in Polk County. Through the incorporation of technology improvements and best operating practices developed over the past decade, Losonoco intends to refurbish and reopen the facility as a 12-million-gallon-per-year plant, virtually doubling its original capacity.
- ✓ **University of Florida**, “Renewable Energy Fuels in a Micro-Grid Power Module” (\$2,464,703): The grant will be used to construct a small-scale demonstration plant using the University’s patented POWER technology, including operation on a variety of liquid and gaseous biofuels. The system allows ultra-clean, efficient operation on a wide variety of biomass fuels, hydrogen or conventional fuels, and this project will be installed at the University of Florida Energy Research Park, connected to the grid by Progress Energy, and operated to determine its performance using biofuels.
- ✓ **Florida Solar Energy Research and Education Foundation**, “Getting Down to Business: Transforming Florida’s Solar Marketplace” (\$1,921,575): The statewide initiative is designed to increase the use of solar technologies as well as strengthen and stabilize the solar-energy industry in Florida. By demonstrating the use of appropriate solar technologies in the commercial sector, this project will increase awareness and participation for Florida’s solar rebate program.
- ✓ **Kore Consulting Group**, “Sky Renewable Energy with Optimal Supply-and-Demand-Side Integration Demonstration” (\$1,802,567): The project will study and develop strategies to successfully integrate renewable and sustainable energy technologies with the quality-of-life and environmental goals of the community. Located in Calhoun County, the project will minimize energy requirements and maximize renewable energy

use to support the community while maintaining the comforts and quality of life expected by its residents.

- ✓ **Florida International University**, “Assessment and Development of Pretreatment for Sugarcane Bagasse to Commercialize Cellulosic Ethanol Technology” (\$990,532): The university project will determine the technical feasibility of using Florida sugarcane waste as a feedstock for a large-scale ethanol industry in the state. The university will try to identify a cost-effective pretreatment process to make sugarcane waste a viable feedstock for ethanol production.
- ✓ **Florida Biomass Energy Consortium**, “Using High Efficiency Biomass Gasification for Industrial Drying” (\$320,623): The proposal is to build and operate an integrated biomass gasification system to replace natural-gas use with biogas for an industrial user. This project will define and establish both the technical and economic viability of using Florida’s biomass resources for industrial drying processes that currently use natural gas as the energy source.

Biofuel Retail Sales Incentive Program and Florida Biofuel Production Incentive Program (Sections 32 and 33)

Section 220.192, F.S., provides an investment tax credit in relate to the production and distribution of ethanol and biodiesel. However, the law is silent as to an incentive for the production of the alternative fuel produced from Florida-grown products. Similarly, there is no incentive provided for retail sale of alternative fuels.

Florida Building Commission/Energy Codes (34)

The Florida Building Commission (FBC or Commission), which is located within the Department of Community Affairs (DCA), consists of 23 members, appointed by the Governor and subject to confirmation by the Senate. The Commission must review the state building code and make recommendations to the Legislature regarding sections of law that should be revised and repealed. The Commission updates the code every three years.

The Legislature in 1998 authorized the development of an organized, unified, simple-to-use, state building code, to be called the Florida Building Code. The code consists of a single set of documents that apply to all elements of construction and demolition of buildings in Florida. The Florida Building Code is to be applied consistently through all cities and counties. It was the intent of the Legislature that the Florida Building Code be an adaptable document that can incorporate, when needed, new technology.

Section 553.72, F.S., provides the following:

The Florida Building Code shall establish minimum standards primarily for public health and lifesafety, and secondarily for protection of property as appropriate. It is the intent of the Legislature that local governments shall have the power to inspect all buildings, structures, and facilities within their jurisdictions in protection of the public health, safety, and welfare pursuant to chapters 125 and 166. It is the intent of the Legislature that the Florida Building Code be adopted, modified, updated, interpreted, and maintained by the Florida Building Commission in accordance with ss. 120.536(1) and 120.54 and enforced by authorized state and local government enforcement agencies.

The Florida Building Code includes the Florida Energy Efficiency Code for Building Construction. All new buildings and renovations and additions to existing buildings must meet the minimum energy efficiency standards set by the code. When building a commercial building or a residence, builders have options called compliance methods that can be utilized to meet code requirements. The compliance methods consist of a performance method or a prescriptive method.

The *performance method* establishes an energy baseline for the entire building and allows designers flexibility in how to meet the baseline. Each building component must either meet or exceed the code requirements or baseline. Commercial buildings are defined in the code by building type and occupancy use and would have a different baseline but have comparable energy efficiency requirements.

Using the *prescriptive method*, a building must meet or exceed all requirements for one of several prepackaged lists of minimum construction requirements. The prescriptive method's prepackaged lists set the criteria for:

- ✓ Glass type, wall insulation, ceiling insulation, type of doors;
- ✓ Minimum efficient levels for heating and cooling systems;
- ✓ Water heating systems efficiency; and
- ✓ Location of the duct systems.

The building compliance code states that the prepackaged lists limit builders to construct residences to those specifications and do not allow substitutions or variations that are less energy efficient than the established levels and standards listed for each component. Due to the flexibility it provides, most builders choose the performance option. According to the Commission, the efficiency rating of most building components can be tailored to individual buildings and both compliance options result in the same overall energy efficiency for buildings.

According to the FBC, The International Energy Conservation Code and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1 and 90.2 are the national model codes and standards for energy conservation in buildings. Federal law requires all states' energy codes to be at least as stringent as these national models. Since its establishment by law in 1980, the energy building code has been required to be cost effective to the consumer.

The cost effectiveness was the complete basis of the code that was last evaluated in 1985. Since that time, changes to minimum performance of individual building components, such as, air-conditioner efficiencies and insulation levels for walls and ceilings, have been enhanced based on levels established by the national model codes and standards (and federal standards for appliances covered by federal law). Additionally, the costs of certain energy efficient technologies that were available in 1985 are significantly less today. Not only can improvements be made at less cost, upgraded features are more readily available.

The counties that have provided local builders with incentives for green building have, in many cases, used the Florida Green Building Coalition's (FGBC or Coalition) ratings as their green building guideline. The Coalition defines a green home as an energy-efficient home that incorporates multiple environmental, ecological and sustainability features that materially enhance the built environment. As stated on their website, the Coalition is a nonprofit Florida corporation dedicated to improving the built environment. Its mission is "to provide a statewide

green building program with environmental and economic benefits."⁴⁷ According to the Coalition, when constructing a green building, some of the following criteria need to be considered:

- ✓ Energy Efficiency (Building and Appliances),
- ✓ Water conservation,
- ✓ Soil erosion,
- ✓ Moisture control,
- ✓ Landscaping,
- ✓ Using low emitting VOCs (volatile organic compound) materials,
- ✓ Disaster mitigation,
- ✓ Reduction in waste material (less impact on the landfills), etc.

Incentives that some counties are already utilizing to encourage green building include:

- ✓ Setting up a system that fast tracks all green building projects;
- ✓ Reducing green building projects fees by 50%; or
- ✓ Offering a 50% refund once the green building is completed.

Public Awareness Campaigns

The FBC administers the Florida Building Energy Code and maintains a staff that responds to questions related to the Energy Code. The Energy Office within the Department of Environmental Protection (DEP) "coordinates all federal energy programs delegated to the state, including energy supply, demand, conservation and allocation."⁴⁸ The Energy Office also administers Florida's solar rebate program. The Florida Home Builders Association conducts trade shows throughout the state and offers continuing education courses to builders on the latest building energy options.

The Department of Community Affairs (DCA) contracts with the Florida Solar Energy Center (FSEC) to maintain a website to provide information to the public, to conduct research, and to perform educational outreach. FSEC, specifically, does research in building science, photovoltaics, solar thermal, hydrogen and alternative fuels, fuel cells, and other advanced energy technologies. The FSEC conducts educational activities in professional/continuing education and K-12 programs. Additionally, FSEC produces curriculum and classroom activities that adhere to the Florida Sunshine State Educational Standards for math and science. The FSEC hosts events like the Junior Solar Sprint and Science Bowl for middle and high school students.⁴⁹

Another public awareness forum for energy efficiency is the Florida Energy Gauge Program that DCA contracts with FSEC to administer.

The Florida Building Energy-Efficiency Rating Act of 1993 requires the Department of Community Affairs to provide a voluntary statewide energy-efficiency rating system for buildings that is called the Building Energy-Efficiency Rating System (BERS). The residential portion of that program is called the Florida Energy Gauge Program. The Florida Solar Energy Center provides the training for the certified raters and generates the brochures advertising the

⁴⁷ <http://www.floridagreenbuilding.org/>

⁴⁸ <http://www.dep.state.fl.us/mainpage/program/energy.htm>

⁴⁹ <http://www.fsec.ucf.edu/en>

Florida Energy Gauge System. The brochures are required to be distributed to all prospective homebuyers or prospective purchasers of property with a building suitable for occupancy.

Potential homebuyers or homeowners can request an Energy Gauge rating of their home. The Energy Gauge Program has a scale that compares homes to similarly sized residences in that area and provides an energy efficiency rating. It provides a detailed breakdown on the energy costs of the following products in the home:

- ✓ Air-conditioning
- ✓ Space heating
- ✓ Water heating
- ✓ Refrigerator
- ✓ Clothes dryer
- ✓ Cooking cost
- ✓ Lighting
- ✓ Pool pumping
- ✓ Other miscellaneous equipment.⁵⁰

The Energy Gauge Rating also provides a national Home Energy Rating System score that can qualify the homebuyer/owner for a number of special mortgage programs that offer lower interest rates and lower closing costs.⁵¹ According to the FSEC, since most homebuyers receive the brochure at the closing of the purchase of their home, the brochures are not utilized and few Energy Gauge Ratings are conducted. The Energy Gauge readings that are done are mainly requested for new construction.

Energy Efficient Sales Tax Holiday (Section 36)

In 2006, the Legislature approved an energy efficient appliance sales tax holiday and designated October 5-11, 2006, as "Energy Efficient Week." Specified new energy efficient appliance purchases of \$1,500 or less were exempt from the state sales tax during the week. The exemption, however, did not cover the first \$1,500 of the purchase price, only those items priced at \$1,500 or less. For example, if the item was priced at \$1,600, no amount was tax exempt.

The exemption applied to the following items:

- ✓ Dishwashers
- ✓ Clothes washers
- ✓ Air conditioners
- ✓ Ceiling fans
- ✓ Incandescent or fluorescent light bulbs
- ✓ Dehumidifiers
- ✓ Programmable thermostats
- ✓ Refrigerators

CS/CS/CS/SB 888 specified that in order for the above items to be eligible for the sales tax exemption, they must be designated by the United States Environmental Protection Agency or by the United States Department of Energy as meeting or exceeding the requirements set up by the Energy Star Program of either agency. The items listed in the bill were selected based

⁵⁰ Florida Energy Gauge Program brochure.

⁵¹ Id.

on their amount of energy consumption or were predicted to be “high ticket items.” There are many items that are rated energy efficient by the Energy Star Program that were not included in the bill due to fiscal constraints.

The bill also restricted the exemptions to noncommercial use only and prohibited purchases made using a business or company check, or credit or debit card. Further, the bill stipulated that any construction company, building contractor, or commercial business or entity purchasing or attempting to purchase products under the exemption was utilizing an unfair method of competition and provided penalties for violation of the law.

Florida Energy, Aerospace, and Technology Fund (Section 39)

Currently, there is no comprehensive fund to encourage expanded collaboration between the public and private sectors and to incentivize increased public/private joint ventures in the areas of energy research, alternative fuel production, space exploration, and technological advances in the energy and aerospace industries.

Research and Demonstration Cellulosic Ethanol Plant (Section 40)

The University of Florida has a patent on alternative fuel, but does not have a research and demonstration facility that would enable the institution to expand on the production of such products.

Renewable Portfolio Standards (Section 41)

The 2006 Legislature provided legislative intent to promote the development of renewable energy and authorized the Public Service Commission (PSC) to adopt goals for increasing the use of existing, expanded, and new Florida renewable energy resources. The PSC is authorized to change the goals and may review and reestablish the goals at least once every five years. As of this date, the PSC has not adopted the goals, however, it has been indicated that workshops are scheduled for this summer and staff is in a “fact-finding” mode.

EFFECT OF PROPOSED CHANGES

Property Tax Exemption for Real Property with Renewable Energy Source Device Installed (Section 1)

The bill removes the expiration date of the property tax exemption for real property on which a renewable energy source device⁵² is installed and is being operated, thereby allowing property owners to once again apply for the exemption. The period of each exemption, however, remains at 10 years. The bill also revises the options for calculating the property assessments for those properties with renewable energy source devices by limiting the exemption to the amount of the original cost of the device, including the installation cost, but not including the cost of replacing previously existing property.

Sales Tax Exemption for Biofuel (Section 2)

⁵² Section 196.012(14), F.S., specifies equipment which, when installed in connection with a dwelling, collects, transmits, stores, or uses solar energy, wind energy, or energy derived from geothermal deposits.

Revises the definition of “ethanol” and increases the cap on the sales tax exemption for materials used in the distribution of biodiesel and ethanol fuels from \$1 million to \$2 million. Specifies eligible items as limited to one refund and requires a purchaser who receives a refund to notify a subsequent purchaser of such refund.

Energy Efficient Motor Vehicle Sales Tax Refund Program (Section 3)

The bill creates the Energy Efficient Motor Vehicle Sales Tax Refund Program, which provides for a sales tax refund of up to \$15,000 of the purchase price of a new alternative motor vehicle that is certified by the Internal Revenue Service as one of the following:

- ✓ A new qualified hybrid motor vehicle;
- ✓ New qualified alternative fuel motor vehicle;
- ✓ New qualified fuel cell motor vehicle; or
- ✓ New advanced lean-burn technology motor vehicle.

The application for refund must be filed with the Department of Revenue within 90 days of the purchase and must contain specified information, in addition to a sworn statement that the information provided is accurate and that the requirements of the section have been met.

The total amount of the rebates is limited each year by the total appropriation for that fiscal year. If funds are insufficient in a given year, refund requests may be processed, and take priority, during the following fiscal year. Refunds may not be claimed under both this section and s. 212.08(7)(ccc), F.S., which provides for the refund of sales taxes on hydrogen-powered motor vehicles. The program terminates on July 1, 2010.

Renewable Energy Technologies Investment Tax Credit (Section 4)

The bill amends the renewable energy technologies investment tax credit by authorizing tax credits to be passed through to underlying partners, members, and owners, or to any taxpayer by written agreement. In order to affect the transfer, the transferor is to provide a statement to the Department of Revenue, giving specified information, at which point, the department will issue a certificate reflecting the tax credits transferred, which the transferee attaches to its Florida corporate income tax return.

Florida Renewable Energy Production Credit (Section 5)

The bill expands the tax credit so that it may be earned both for electricity sold and electricity used by the producer. The bill also allows taxpayers using the alternative minimum tax process to be able to utilize the credit.

“Green Buildings” – Energy Efficient Building Standards for State, County, Municipal and Public Community Colleges (Sections 6-10 and 35)

This bill produces the following changes:

- ✓ Requires that all county, municipal, and public community college buildings be constructed in accordance with the USGBC LEEDs program, the Green Building Initiative’s Green Globes program, or any other nationally-recognized, green building system that is approved by DMS. This requirement would only apply to buildings whose architectural plans are started after July 1, 2008,

- ✓ Declares that the construction of energy efficient and sustainable buildings is an important government interest,
- ✓ Revises the short title and intent of 255.251 through 255.255 so that those statutes focus on both energy conservation and sustainable buildings,
- ✓ Requires that all state government buildings be constructed in accordance with the USGBC LEEDs program, the Green Building Initiative's Green Globes program, or any other nationally-recognized, green building system that is approved by DMS,
- ✓ Provides that all Florida state agencies use GEPSCA contracts to improve their facilities by requiring all state agencies to provide the Department of Management Services (DMS) with a list of buildings in their inventory that would be suitable targets for GEPSCA contracts and are over 5,000 square feet in area. These lists must be submitted to DMS by December 31, 2007,
- ✓ Requires that DMS consult with each agency and create a schedule to prioritize agency buildings for GEPSCA contracts by March 1, 2007. The schedule will also create deadlines for the agencies to implement the GEPSCA contracts, and
- ✓ Defines "sustainable building rating."

Guaranteed Energy Performance Savings Contracting (Sections 11 and 29)

This bill changes the substance of the GEPSCA contracts as well as their financing as follows:

- ✓ Clarifies the language so that there is greater flexibility for facility improvements that produce an energy related cost savings or minimize energy consumption;
- ✓ Removes training programs from the definition of "energy conservation measures;"
- ✓ Gives the CFO more authority to review GEPSCA contracts for costs that are not fully guaranteed under proposed contracts;
- ✓ Requires that DMS assist the office of the CFO with technical content of contracts; and
- ✓ Gives the CFO and DMS greater authority to revise the current GEPSCA Model Contract.

Changes to the financing of the GEPSCA program include:

- ✓ Amends s. 287.064, F.S., to allow 20 year financing for GEPSCA contracts under the state's line of credit;
- ✓ Requires that the ESCO must replace or extend the life of energy conservation equipment throughout the life of the contract; This would be required in both s. 489.145 and s. 287.064(10), F.S.;
- ✓ Requires that all GEPSCA financing payments under a contract are equal throughout the life of the financing;
- ✓ Limits the use of cost avoidance in GEPSCA financing to only "allowable cost avoidance" so that financing payments are made entirely through recurring funds that are appropriated to the agency prior to the contract;
- ✓ Requires that contract proposals submitted for state agencies include supporting information, documentation of recurring funds, and approval by the agency head,
- ✓ Allows the CFO greater rights and privileges than other third party financiers; and
- ✓ Gives the CFO authority to require that state agencies use the most favorable financing available.

"Energy Efficiency and Conservation Month" (Section 12)

In an effort to promote efficiency and conservation of the state's resources, the bill designates the Month of October as "Energy Efficiency and Conservation Month."

Solar Energy System Incentives Program (Sections 13 and 15)

The bill adds a stipulation that to qualify for a solar energy system rebate, an applicant must apply for a rebate reservation at least 10 days before the date that the solar equipment is installed. It allows homebuilders and developers to file a single application for project sites that contain more than 25 homes; however, rebate reservations for project sites with fewer than 25 homes must be filed on separate applications.

The bill provides that at least 60 percent of the funds appropriated for the rebate program be earmarked for homeowners installing solar equipment in new or renovated homes.

The bill amends language regarding the rebate for the purchase and installation of a solar thermal water heater. Businesses, publicly owned or operated facilities, or facilities owned or operated by private, not-for-profit organizations that have a commercial-sized system are to be paid \$15 per 1,000 Btus produced. Current language requires verification of the production of Btus through an approved metering device; however such devices have proved to be cost-prohibitive. At the request of the Department of Environmental Protection and the Public Service Commission, the requirement that the Btu production be verified through an approved metering device has been removed.

Greenhouse Gas Inventories (Section 16)

The Department of Environmental Protection (DEP) shall develop greenhouse gas inventories that account for annual greenhouse gases emitted to and removed from the atmosphere and forecast gases emitted and removed for all major greenhouse gases. The DEP shall establish timeframes for planning, collecting and analyzing the data and shall:

- ✓ Establish what greenhouse gases need to be included in the inventory;
- ✓ Define major emitters;
- ✓ Establish which emitters must report emissions;
- ✓ Establish what methodologies shall be used to estimate gases emitted and removed from those not required to report; and
- ✓ Establish a system to collect data and continually monitor major green house gas emitters.

Power Plant Siting Act (Sections 17-22)

In implementing the provisions of CS/CS/CS SB 888, the Department of Environmental Protection identified the following "glitches" to the Power Plant Siting Act:

- ✓ After an application for the construction of a power plant has been approved the Department of Environmental Protection (DEP) issues a certification. Any procedural events that occur after the certification are described as postcertification. The bill adds the label of postcertification amendments and postcertification review to its appropriate section. A postcertification amendment means a minor change to the application after the certification. A postcertification review is a review to insure compliance with the conditions of certification. This language removes confusion between a post certification review and a post certification amendment which are two separate activities.

- ✓ The bill explains that DEP would issue a “determination” on the post certification amendment, rather than an “approval”. The existing language presumes that the post certification amendment would be approved instead of allowing DEP to make a determination.
- ✓ The bill relocates a section on the completeness of information for local governments to make a land use consistency determination into the section on land use consistency. The land use consistency section deals with applicants and application completeness. The language was mistakenly located in the land use and certification hearings and parties section of law. The bill deletes that language from its previous section (s. 403.508, F.S.).
- ✓ The revised language explains that “if an applicant applies to the local government for necessary local land use or zoning approval, the local government shall issue a revised determination within 30 days following the conclusion of any proceeding”⁵³ held by the local government to consider the application for land use or zoning approval. Present law prefaces the word proceeding, with, “that” instead of the proposed word “any”. Since a “that” proceeding does not exist in statute, the technical change needs to be made. Further, the added language of “held by the local government to consider the application for land use or zoning approval,” further clarifies the proceeding.
- ✓ If a party wishes to dispute the local government’s determination of application completion, the statute states that the party would file a petition with the department within 21 days of the notice of the ruling. Any petitions on land use consistency determinations should be filed with the Administrative Law Judge (ALJ) rather than DEP. A case has been opened by the Division of Administrative Hearings and an ALJ has already been assigned. The bill’s revised language requires the ALJ that receives a petition on land use consistency determinations to schedule a hearing date within 5 days. Additionally, the bill deletes a redundant provision on the ALJ’s issuance of the recommended order which is in s. 403.508, F.S.
- ✓ The statute implies that DEP should issue the final order concerning property rights. The Siting Board which consists of the Governor and Cabinet, issues a final order. They have the authority to order the issuance of such property rights. DEP does not have that authority. According to DEP, the language specifies that property rights will be handled as part of the stipulation filed among all parties that there are no disputed issues of fact or law, and requires that such property rights be issued within 30 days of issuance of the final order.
- ✓ The bill for clarification, adds the label, “For certifications issued by the board,” in s. 403.509 (5), F.S., under the “Final disposition of application section.”
- ✓ The Power Plant Siting Act (PPSA) requires that local governments provide notice to all parties of the intent to hold informational public meetings. The bill adds changes to the date of issuance of notice from 5 days to 15 days. The bill adds under public notice, s. 403.5115, F.S., the specification of, “for all applications”, and “if applicable” clarifying that notice must be given for all applications. It deletes the language that only references the notice of the supplemental application and the notice of an existing site certification. This may not capture all applicable “notices”.

⁵³ s. 403.50665(3), F.S.

- ✓ The bill adds “s. 403.5115 (5), F.S., requiring local governments that plan on conducting an informational public meeting to publish notice of the meeting in a newspaper of general circulation within the county or counties in which the proposed electrical power plant will be located 7 days prior to the meeting.” This will allow the Department of Environmental Protection (DEP) and other entities enough time to make travel plans to attend.
- ✓ DEP mails out public notifications to persons who have requested to be on the department’s mailing list. These citizens have requested to receive copies, for example, of notices outlined in the PPSA for, among other things: land use hearings, filing of applications, and siting board hearings. Some constituents have interpreted the language to mean that by signing up to be notified for one case that they will be sent notices on all future cases. The bill clarifies that notices will be provided to persons who have requested to be placed on the list for each case not for all cases in the future.

Transmission Line Siting Act (Sections 23-28)

In implementing the provisions of CS/CS/CS SB 888, the Department of Environmental Protection identified the following “glitches” to the Transmission Line Siting Act:

- ✓ Present law states that “within 30 days after the distribution of an application the affected agencies shall file a statement with the department containing the recommendations of each agency concerning the completeness of the application for certification.”⁵⁴ The bill clarifies that agency completeness statements are due 30 days after the application is filed, rather than after it is distributed. The bill clarifies the deadline for the issuance of the determination of completeness by DEP to be 37 days after the filing of the application rather than 7 days after the filing of agency completeness statements. There is no change in the actual date in the process, however, according to the Department of Environmental Protection, “it is possible agencies could file completeness statements on different days, thus this could lead to some confusion, so it is best to hinge the date on the date of filing.”
- ✓ The bill matches the PPSA language which states that the DEP would issue a “determination” on the post certification amendment, rather than an “approval”. The existing language presumes that the post certification amendment would be approved instead of allowing DEP to make a determination.
- ✓ The statute provides a deadline for the parties to provide comments on the completeness of alternate corridors within 10 days of the filing by the applicant. This will allow DEP enough time to gather information and comments from all parties into its alternate corridor completeness determination.
- ✓ The bill makes technical changes to the section on the process for cancellation of the certification hearing. The earliest date a motion could be filed to cancel the hearing would be 29 days prior to the hearing rather than the 25 days, which is in present law. Twenty-nine (29) days is chosen because 30 days prior to the hearing is the deadline for intervention. The bill also clarifies that if all parties agree and there is no need for a certification hearing then it must be stipulated that there are no disputed issues of law.

⁵⁴ s. 403.5252(1)(a), F.S.

- ✓ The bill adds the deadline for the publication of public notice of the cancellation of the certification hearing to 3 days prior to the hearing. This matches the requirement of publication by the applicant. It matches the time frames for the PPSA and enables DEP to have the time to publish such notice under the new lengthier Florida Administrative Weekly publication requirements.
- ✓ The bill changes the deadline for notification of the intent to conduct an informational public meeting from 5 days to 15 days. This matches the change made to the PPSA, and provides for greater notice to the public of meetings.
- ✓ The proposed language in the TLSA also matches a change made to the PPSA, and provides for greater notice to the public on informational meetings.

Farm-to-Fuel Advisory Council (Section 30)

The bill establishes a 15-member Farm-to-Fuel Advisory Council within the Department of Agriculture and Consumer Services to provide advice and counsel to the commissioner concerning the production of renewable energy in the state.

Farm-to-Fuel Grants Program (Sections 14 and 31) Renewable Energy Technologies Grants Program

The bill establishes the Farm-to-Fuel Grants Program within the Department of Agriculture and Consumer Services; specifies the use of grants for certain bioenergy projects; provides eligibility requirements; and requires the department to consult with the Department of Environmental Protection, the Office of Tourism, Trade, and Economic Development, and certain experts when evaluating applications

Biofuel Retail Sales Incentive Program (Section 32)

The bill establishes the Biofuel Retail Sales Incentive Program; and establishes goals for replacing petroleum consumption and provides incentive payments to qualified retail dealers for increases in the amount of biofuels offered for sale.

Florida Biofuel Production Incentive Program (Section 33)

The bill establishes the Florida Biofuel Production Incentive Program and provides incentive payments to producers of certain biofuels and authorizing the Department of Agriculture and Consumer Services to adopt rules.

Florida Building Commission/Energy Codes (Section 34)

The bill directs the Florida Building Commission, in collaboration with key building and local county/city stakeholders, to develop a model residential energy efficiency ordinance. The model ordinance must include incentives to encourage local builders to incorporate these new standards. The commission must report back to the Legislature by March 1, 2008.

Additionally, the Florida Building Commission is directed to analyze the cost-effectiveness of the present energy efficiency standards. Energy costs have started escalating in the past few years so reviewing the code's efficiency investment may be necessary. The Florida Building Commission expects that there may be more efficiencies to be gained by reevaluating

Florida's codes and comparing the codes with the national model requirements. The commission must provide a report to the Legislature by March 1, 2008.

The bill requires the Florida Building Commission, in consultation with various stakeholders, to develop and implement a public awareness campaign that promotes energy efficiency and the benefits of building green. The campaign is required to update a current website to include information on green building practices. It is also required to educate citizens on how to implement energy efficient and cost saving strategies when building a home or updating an existing one. The legislation also specifies that various energy efficient products be promoted through existing trade shows. Although there are public outreach programs in place through the Department of Community Affairs and the Florida Solar Energy Center, this language couples energy efficiency and the benefits of building green. The intent is to make the public aware of how to build green and how energy efficient strategies can save energy and money. The public awareness campaign goes into effect January 1, 2008.

Energy Efficiency Sales Tax Holiday (Section 36)

The bill reauthorizes the sales tax holiday for 2007 and increases the length of the holiday from 7 to 14 days, beginning October 1st and ending October 14th. The bill removes the restrictions from the commercial sector so that developers, contractors, and other commercial entities may also take advantage of the sales tax exemptions. Further, the bill allows for the exemption to apply to the first \$1,500 of the sales price of an Energy Star appliance rather than up to \$1,500 of the sales price; therefore, if the item is priced at \$1,600, only the last \$100 is taxable.

Biodiesel Fuel for State-Owned Vehicles (Section 37)

The bill establishes standards for diesel fuel purchases for use by state-owned diesel vehicles and equipment to include biodiesel purchase requirements.

Biodiesel Fuel for School District Transportation (Section 38)

The bill establishes standards for the use of biodiesel fuels by school district transportation services.

Florida Energy, Aerospace, and Technology Fund (Section 39)

Subject to appropriation, the bill creates the Fund in the Executive Office of the Governor to encourage a state partnership with the federal government and the private sector to identify business and investment opportunities and target performance goals for those investments in the following areas:

- ✓ Alternative energy development and production infrastructure;
- ✓ Bio-fuel, wind power, solar energy technology development and applications;
- ✓ Ethanol production and systems for conversion and use of ethanol fuels;
- ✓ Cryogenics and hydrogen-based technology applications, storage, and conversion systems;
- ✓ Hybrid engine power systems conversion technologies and production facilities;
- ✓ Aerospace industry expansion or development opportunities;
- ✓ Aerospace facility modifications and upgrades;
- ✓ Build outs;

- ✓ New spaceport, range and ground support infrastructure;
- ✓ New aerospace facilities and laboratories;
- ✓ New simulation, communications, and command and control systems; and
- ✓ Other aerospace manufacturing and maintenance support infrastructure.

A complete and detailed report is to be provided to the Governor, President of the Senate, and Speaker of the House with the following components:

- ✓ An accounting of all state funds committed and invested by the fund;
- ✓ A qualitative and quantitative assessment of each fund investment against the investment performance goals established for investment, as well as an assessment of overall fund performance against investment objectives established for the fund overall; and
- ✓ An evaluation of all activities of the fund and recommendations for change.

Research and Demonstration Cellulosic Ethanol Plant (Section 40)

The University of Florida is authorized to construct and operate a multifaceted Research and Demonstration Cellulosic Ethanol Plant designed to conduct research and to demonstrate and advance the commercialization of cellulose-to-ethanol technology, including technology licensed by the University of Florida. Provides for ownership of the plant by the state.

Renewable Portfolio Standards (41)

The Florida Energy Commission is required to conduct a study to recommend an appropriate Renewable Portfolio Standard for the state and requires a report to the Legislature.

C. SECTION DIRECTORY:

Section 1. Amends s. 196.175, F.S, revising provisions for the renewable energy source exemption and excluding the assessed value of certain real property for determination of such exemption.

Section 2. Amends s. 212.08, F.S., revising the definition of “ethanol”; increasing the cap on the sales tax exemption for materials used in the distribution of biodiesel and ethanol fuels; specifying eligible items as limited to one refund; and requiring a purchaser who receives a refund to notify a subsequent purchaser of such refund.

Section 3. Creates s. 212.086, F.S., providing financial incentives for the purchase of an alternative motor vehicle; providing that any person who purchases an alternative motor vehicle from a sales tax dealer is eligible for a refund of the sales tax paid on the lesser of \$15,000 or the sales price as provided; requiring the alternative motor vehicle to be certified under the Internal Revenue Code of 1986, as amended, as a new qualified hybrid motor vehicle, new qualified fuel cell motor vehicle, or new advanced lean-burn technology motor vehicle; requiring that an application for refund be filed with the Department of Revenue; providing that the total dollar amount of refunds is limited to the total amount of appropriations in any fiscal year; authorizing a request for a refund to be held for payment in the following fiscal year under certain circumstances; requiring the department to adopt rules; and providing for future repeal of the program in 2010.

Section 4. Amends s. 220.192, F.S., providing a definition of ‘corporation’; providing for the transferability of renewable energy technologies investment tax credit; requiring the

Department of Revenue to promulgate a form and issue certificates; and requiring the Department of Revenue to adopt rules to implement and administer the provisions allowing for a pass through of tax credits.

Section 5. Amends s. 220.193, F.S., providing a definition of “sale or sold”; and providing that a taxpayer’s use of certain credits does not prohibit the use of other authorized credits.

Sections 6-10. Amend ss. 255.251, 255.252, 255.253, 255.254, 255.255, F.S., revising the short title; revising criteria for energy conservation and sustainability for state-owned buildings; requiring buildings constructed and financed by the state to meet a rating system as approved by the department; requiring state agencies to identify state-owned buildings that are suitable for guaranteed energy performance savings contracts; providing requirements and procedures thereof; requiring the Department of Management Services to evaluate identified facilities and develop an energy efficiency project schedule; providing criteria for such schedule; and requiring the department to adopt rules and procedures for energy conservation guidelines.

Section 11. Amends s. 287.064, F.S., extending the period of time allowed for the repayment of funds for certain purchases relating to energy conservation measures.

Section 12. Amends s. 377.802, F.S., providing for the annual designation of “Energy Efficiency and Conservation Month.”

Section 13. Amends s. 377.803, F.S., deleting definition of “approved metering equipment.”

Section 14. Amends s. 377.804, F.S., deleting provisions relating to bioenergy projects under the Renewable Energy Technologies Grants Program.

Section 15. Amends s. 377.806, F.S., revising rebate eligibility and application requirements for solar thermal systems; requiring applicants to apply for rebate reservations; authorizing homebuilders and developers to file a single application form for multiple project sites; providing for distribution of rebate funds; and revising rulemaking authority.

Section 16. Amends s. 403.0874, F.S., requiring the Department of Environmental Protection to develop greenhouse gas inventories.

Sections 17-22. Amend ss. 403.50663, 403.50665, 403.508, 403.509, 403.5113, and 403.5115, F.S., revising the requirements for notice of certain informational public meetings by local governments and regional planning councils relating to power plant siting; authorizing local governments to determine incompleteness of information on certain siting applications as inconsistent with land use plans and zoning ordinances; revising provisions for the filing of certain petitions relating to land use; revising provisions for land use certification hearings relating to power plant siting; revising provisions for the final disposition of power plant siting applications; revising provisions relating to power plant siting postcertification amendments and review; and revising provisions for the public notice of activities relating to power plant siting.

Sections 23-28. Amend ss. 403.5252, 403.527, 403.5271, 403.5317, and 403.5363, F.S., revising the timeframes for agencies and the Department of Environmental Protection to provide statements relating to the completeness of applications for power plant siting certification; revising the timeframe for the administrative law judge to cancel power plant siting certification hearings and relinquish jurisdiction to the Department of Environmental Protection

upon request by the applicant or the department; revising provisions relating to the completeness of applications for alternate corridors; revising the requirements for local governments and regional planning councils to notice certain informational public meetings; revising provisions for power plant siting postcertification activities; revising provisions for public notices of power plant siting certification hearings; requiring local governments and regional planning councils to public notice of certain informational meetings; and providing requirements for such publication.

Section 29. Amends s. 489.145, F.S., revising provisions relating to guaranteed energy performance savings contracting to include energy consumption and energy-related operational savings; revising provisions for the financing of guaranteed energy performance savings contracts; requiring that consolidated financing of deferred payment commodity contracts are secured by certain funds; and requiring the Chief Financial Officer to review proposed contracts.

Section 30. Creates s. 570.956, F.S., establishing a 15-member Farm-to-Fuel Advisory Council within the Department of Agriculture and Consumer Services to provide advice and counsel to the commissioner concerning the production of renewable energy in the state.

Section 31. Creates s. 570.957, F.S., establishing the Farm-to-Fuel Grants Program within the Department of Agriculture and Consumer Services; specifying the use of grants for certain bioenergy projects; providing eligibility requirements; and requiring the department to consult with the Department of Environmental Protection, the Office of Tourism, Trade, and Economic Development, and certain experts when evaluating applications.

Section 32. Creates s. 570.958, F.S., establishing the Biofuel Retail Sales Incentive Program; and establishing goals for replacing petroleum consumption and providing incentive payments to qualified retail dealers for increases in the amount of biofuels offered for sale.

Section 33. Creates s. 570.959, F.S., establishing the Florida Biofuel Production Incentive Program; and providing incentive payments to producers of certain biofuels and authorizing the Department of Agriculture and Consumer Services to adopt rules.

Section 34. Directs the Florida Building Commission to convene a workgroup to develop a model residential energy efficiency ordinance; requires the commission to consult with specified entities to review the cost-effectiveness of energy-efficiency measures in the construction of residential, commercial, and government buildings; requires the commission to consult with specified entities to develop and implement a public awareness campaign; and requires reports to the Legislature.

Section 35. Requires all county, municipal, and public community college buildings to meet an energy efficiency rating; and provides applicability to all such buildings whose architectural plans are started after July 1, 2008.

Section 36. Specifies "Energy Efficiency Sales Tax Holiday" as a period during which the sale of energy-efficient products is exempt from certain tax; and provides the definition of energy-efficient product.

Section 37. Establishes standards for diesel fuel purchases for use by state-owned diesel vehicles and equipment to include biodiesel purchase requirements.

Section 38. Establishes standards for the use of biodiesel fuels by school district transportation services.

Section 39. Provides legislative intent relating to the leverage of state funds to encourage a partnership with the federal government and the private sector for certain energy-related research and production and aerospace industry expansion and development opportunities.

Section 40. Provides for the construction and operation of a multifaceted Research and Demonstration Cellulosic Ethanol Plant designed to conduct research and to demonstrate and advance the commercialization of cellulose-to-ethanol technology, including technology licensed by the University of Florida; and provides for ownership by the state.

Section 41. Requires the Florida Energy Commission to conduct a study to recommend an appropriate Renewable Portfolio Standard for the state and requires a report to the Legislature.

Section 42. Appropriates \$65,763 to the Department of Revenue to administer the Energy Efficient Sales Tax Holiday.

Section 43. Appropriates \$20,000,000 to the University of Florida to establish the Research and Demonstration Cellulosic Ethanol Plant.

Section 44. Appropriates \$10,000,000 to the Department of Environmental Protection for the Renewable Energy Technologies Grants Program.

Section 45. Appropriates \$2,500,000 to the Department of Environmental Protection to fund the solar rebate program.

Section 46. Appropriates \$40,000,000 to the Department of Agriculture and Consumer Services to fund the Farm-to-Fuel Grants Program.

Section 47. Appropriates \$12,600,000 to the Department of Revenue for the purpose of paying sales tax refunds under the Energy Efficient Motor Vehicle Sales Tax Refund Program.

Section 48. Appropriates \$100,000 to the Department of Community Affairs to convene a workgroup to develop a model residential energy efficient ordinance and to review the cost-effectiveness of energy efficiency measures in the construction of certain buildings.

Section 49. Appropriates \$334,237 to the Department of Community Affairs to develop and implement a public awareness campaign that promotes energy efficiency and the benefits of building green.

Section 50. Provides an effective date of July 1, 2007.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

The bill increases the sales tax exemption cap for materials used in the distribution of biodiesel and ethanol fuels from \$1 to \$2 million for each fiscal year through July 1, 2010.

| | <u>2007-08</u> | <u>2008-09</u> | <u>2009-10</u> |
|-----------------|----------------|----------------|----------------|
| General Revenue | (\$1,000,000) | (\$1,000,000) | (\$1,000,000) |

The Revenue Estimating Conference has estimated that the provisions of this bill will have the following negative fiscal impact on state government:

Energy Efficiency Sales Tax Holiday

| | <u>2007-08</u> |
|-----------------|-----------------|
| General Revenue | (\$8.9 m) |
| State Trust | (Insignificant) |
| Total | (\$8.9.0m) |

2. Expenditures:

Recurring:

None.

Non-Recurring:

Energy Efficiency Sales Tax Holiday

\$65,763 is appropriated from the General Revenue Fund to the Department of Revenue for the purpose of administering the Energy Efficient Sales Tax Holiday.

Energy Efficient Motor Vehicle Sales Tax Refund

\$12,600,000 is appropriated from the General Revenue Fund to the Administrative Trust Fund of the Department of Revenue for the Energy Efficient Motor Vehicle Sales Tax Refund.

Renewable Energy Technologies Grants Programs

\$10,000,000 is appropriated from the General Revenue Fund to the Department of Environmental Protection for the purpose of funding the Renewable Energy Technologies Grants Program.

Solar Energy System Incentives Program

\$2,500,000 is appropriated from the General Revenue Fund to the Department of Environmental Protection for the purpose of funding the Solar Energy System Incentives Program.

Farm-to-Fuel Grants Program

\$40,000,000 is appropriated from the General Revenue Fund to the Department of Agriculture and Consumer Services for the purpose of funding the Farm-to-Fuel Grants.

Model Residential Energy Efficient Ordinance

\$100,000 is appropriated from the General Revenue Fund to the Department of Community Affairs for the purposes of convening a workgroup to develop a model residential energy efficient ordinance and to review the cost-effectiveness of energy efficiency measures in the construction of certain buildings.

Public Awareness Campaign

\$334,237 is appropriated from the General Revenue Fund to the Department of Community Affairs for the purposes of developing and implementing a public awareness campaign that promotes energy efficiency and the benefits of building green.

Research and Demonstration Cellulosic Ethanol Plant

\$20,000,000 in nonrecurring funds is appropriated from the General Revenue Fund to the University of Florida, Institute of Food and Agriculture Sciences, for the purpose of establishing the Research and Demonstration Cellulosic Ethanol Plant.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

The Revenue Estimating Conference has estimated that the provisions of this bill will have the following negative fiscal impact on local governments:

Renewable Energy Source Exemption

| | | |
|--------------------|----------------|----------------|
| Total Local Impact | <u>2007-08</u> | <u>2008-09</u> |
| | (\$5.5) | (\$5.6) |

NOTE: The Revenue Estimating Conference reviewed the PCB language before it was finalized and based the estimate on the provision being retroactive. It has been amended so that the portion which was retroactive has been corrected. The conference has not yet met on the new language, but the estimate should be lower.

Energy Efficiency Sales Tax Holiday

| | |
|------------------------|------------------|
| | <u>2007-08</u> |
| Revenue Sharing | (\$0.3 m) |
| Local Gov't. Half Cent | (\$0.9 m) |
| Local Option | <u>(\$0.8 m)</u> |
| Total Local Impact | (\$2.0 m) |

2. Expenditures:

Indeterminate.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The tax exemptions and tax credits included in this bill will reduce the private sector's tax burden.

Persons that purchase the solar energy items covered by this bill will benefit by receiving a rebate and persons purchasing alternative fuel vehicles under this bill will receive a sales tax refund.

Manufacturers and retailers of appliances meeting Energy Star Program ratings should experience an increase in sales during the Energy Efficient Sales Tax Holiday and manufacturers and retailers of alternative motor vehicles should see an increase in sales, as well. Similarly, manufacturers, retailers, and installers of solar systems also may experience an economic boost from those utilizing the solar rebate program.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

The mandate provisions of the bill requires cities and counties to take action requiring the expenditure of funds and reduces the authority that cities and counties have to raise revenues in the aggregate.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The Department of Revenue is authorized to adopt rules regarding the Energy Efficient Sales Tax Holiday.

The Department of Management Services and the Department of Financial Services are authorized to adopt rules to implement the Guaranteed Energy Performance Savings Contracting Program.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

D. STATEMENT OF THE SPONSOR

Not applicable.

IV. AMENDMENTS/COUNCIL SUBSTITUTE CHANGES

N/A