**Electric Utility Issues**

There are many important issues discussed during each Legislative session. Electric cooperatives focus primarily on proposed legislation that could have long-term impacts on the availability or affordability of electricity in Florida. The following pages provide information and analysis on:

* Electricity theft
* Coal Combustion Residuals (CCRs)
* Texting while driving
* Overview of electricity generation issues
* Renewable energy legislation and related policy issues
* Third party retail sales of renewable electricity
* Eliminating certain electric utility sales tax exemptions
* Energy efficiency standards and public education to enhance energy conservation efforts
* Insights into the challenges of electricity generation

If you have any questions about the information contained in this Guidebook, please contact the persons listed in the Contacts section. We hope that this Guidebook will be a useful tool as electric utility issues come before the Legislature, and we hope you have a very successful year.

Electricity Theft

Electricity theft is a growing problem for electric utilities. Electric co-ops believe we need stronger laws to deter electricity theft and to help utilities minimize losses due to theft that must be recovered through electric rates. Currently, the criminal penalty is a first-degree misdemeanor, regardless of the dollar value of the electricity that is stolen. The electric cooperatives will pursue legislation to allow penalties that vary depending upon the value of the electricity that was stolen. Additionally, the legislation would increase the minimum award in a civil action against the guilty party from $1,000 to $3,000, which would mitigate the utility’s time and cost of recovering its losses.

 Coal Combustion Residuals (CCRs)

Coal combustion residuals are materials produced from burning coal to make electricity. These by-products are recycled into materials used to make concrete, roads, wallboard, and many other products. The electric cooperatives will be working on legislation with other electric utilities and stakeholders to address a proposed rule that is expected to be issued by the United States Environmental Protection Agency (EPA). The EPA is determining if CCRs should be regulated as hazardous waste even though EPA has determined the materials do not warrant such regulation. For decades, CCRs have been treated as non-hazardous. Under the non-hazardous classification, utilities are allowed to landfill and recycle CCRs in Florida. Florida’s landfill rules are as stringent as any in the country and they are effective for storing CCRs. However, Florida is unique in that hazardous waste may not be stored in the state. Therefore, if the EPA changes the classification to hazardous, CCRs would have to be shipped out of state to be stored and we estimate that cost to be more than $150 million per year just for Seminole Electric’s coal plant. In addition, we probably would not be able to recycle any CCRs. Currently, recycling CCRs avoids the mining of materials that otherwise would be necessary for roads, concrete and wallboard. We support legislation that would continue to allow safe storage and recycling of CCRs in Florida.

Texting While Driving

Several bills have been filed that would ban the practice of texting while driving. The electric cooperatives support initiatives that help keep our roadways safe. That commitment includes our personnel who maintain power lines and equipment used to distribute electricity. While it is apparent that texting while driving is dangerous, we do not want the legislation to have unintended consequences. For instance, we would not want to ban the safe use of wireless communication devices that do not interfere with vehicular operation. In addition, legislation should specify that passengers would be allowed to use wireless devices to text while vehicles are in motion. We will work with legislators to make sure such a bill does not inadvertently or unnecessarily impede our daily operations.

Overview of Electricity Issues

We have come to depend on electricity in nearly every aspect of our lives. Having sufficient and affordable supplies of electricity is essential for security, our livelihoods, and our comfort. The demands for electricity have been tempered by the economic slowdown, and future demands also may be tempered by conservation and energy efficiency efforts. Additionally, renewable energy sources are continually being developed that help meet electricity demands. However, the increased implementation of conservation and energy efficiency programs, and the addition of more renewables will not change the fact that new generation will be needed in the future to meet Florida’s demand for electricity that is affordable and reliable. Utilities have to plan and prepare now to meet demands for electricity in the future, due to the time required to plan and build generation facilities, transmission lines, substations, and distribution lines, which can take up to 10 years.

The key to keeping Florida’s electricity both reliable and affordable is using a diversified portfolio of electricity generation technologies, utilizing a variety of generation fuels (coal, natural gas, nuclear, biomass, and other renewables) while continuing to support cost effective energy efficiency and conservation efforts. There also can be a place for intermittent renewable resources like solar and wind. While the cost for wind and solar technologies have fallen in recent years, they are still not yet economically viable even with government subsidies. Intermittent energy sources like solar and wind are more expensive than traditional sources of electricity, and must be backed up by traditional fossil-fuel peaking generation, which further increases the cost of using these resources. Unless there are significant cost reductions and improvements in technology, such as the ability to store massive amounts of energy for use when the sun is not shining or the wind is not blowing, it will be difficult for utilities to justify incorporating these resources into their generation mix. This is especially true in Florida where the economic viability of renewable resources compares poorly to what is available in other states (see renewable maps in the index). Conservation and energy efficiency can temper the demand for electricity, but no amount of conservation or curtailment of usage will change the fact that additional generation will be needed in the future to meet our demand for electricity.

Renewable Energy Legislation and Related Policy Issues

Florida passed legislation in 2008 (HB 7135) and 2012 (HB 7117) that promotes renewable energy. HB 7135 requires electric utilities to implement net-metering programs that allow customers that self-generate renewable electricity to offset their energy consumption with the electricity they produce, and to sell any excess energy to their utility. Further, HB 7135 allows customer-owned anaerobic digesters to consolidate multiple metering points for virtual net metering, which is called conjunctive billing. However, the statute provides a safeguard for small utilities that allows the utility to reject conjunctive billing if it will negatively impact the utility’s ability to provide adequate and reliable electric service or will increase rates for the general body of ratepayers. The 1¢ per kilowatt-hour energy production tax credit for new renewable energy facilities was revived last year by HB 7117. The tax credit also is available for renewable energy facilities that increase investment by 50 percent. The credit is capped at $5,000,000 in 2012 and 2013 and $10,000,000 for the remaining years through June 2016.

In general, electric cooperatives are leery of renewable or clean energy mandates, which almost always have consequences for electric rates and create subsidies between consumers. While goals based upon available resources and cost considerations could be used to promote renewables, goals with mandates and penalties could be very costly for Florida’s ratepayers.

Seminole Electric Cooperative, Clay Electric’s wholesale provider of electricity, maintains a diverse portfolio of energy producing technologies to meet the electric needs of Clay Electric and the other Florida distribution cooperatives that depend on Seminole. Seminole maintains one of the largest renewable energy portfolios in Florida, which includes purchases of approximately 123 megawatts of electricity from biomass waste-to-energy facilities and landfill gas-to-energy facilities. Additionally, four of Seminole’s member cooperatives receive 26 megawatts of electricity from hydropower through the Southeastern Power Administration (SEPA). Although Florida does not require utilities to produce electricity using renewable energy, Seminole voluntarily entered into long-term contracts for renewable resources. When these contracts were executed, the renewable energy was purchased at a cost that was very competitive with the co-op’s avoided cost. However, since natural gas prices have dropped significantly, these renewable resources now are not cost competitive with traditional resources such as Seminole’s existing fleet and buying from other generators. While renewables should be encouraged, renewable mandates that require purchasing or generating electricity at a cost that is significantly higher than avoided cost will result in higher electric rates.

Our concerns are in line with those raised in the Senate Committee on Communications, Energy, and Public Utilities’ Issue Brief 2011-109, Review Potential Methods of Encouraging Renewable Energy That Minimize the Economic Impact on Utility Ratepayers (the “Brief”) that details the challenges policymakers face in implementing renewable incentives, which was released in October 2010. The Brief highlights the issue of cost and other details related to a renewable mandate. In addition, the Brief discusses a program the Gainesville Regional Utilities (GRU) called a Feed-in-Tariff (FIT) program. The FIT requires the retail utility to purchase electricity produced by a specific type of technology at a predetermined rate for a specific period of time. According to the Brief, participants are being paid substantially more than GRU’s avoided cost and the utility passes this extra cost onto its ratepayers resulting in higher rates. The Brief discusses many of the difficulties that go along with a FIT and a renewable mandate, including the disproportionate impact on low-income individuals. For your convenience, a copy of the Brief has been included in the index of this resource guide.

Electric cooperatives believe the desire to increase the use of renewable energy must be balanced with the need to keep electricity affordable and reliable. A renewable mandate might sound good in concept, but in reality, such a plan could lead to significant increases in costs for Floridians. In addition, renewables such as solar and wind are intermittent energy sources that cause planning and reliability problems for utilities that must provide power regardless of whether the sun is shining or the wind is blowing. Clay Electric will continue to support legislation that promotes voluntary renewable programs so long as the costs are reasonable.

Third Party Retail Sales of Renewable Electricity

Current law provides that any renewable generator can sell electricity into the wholesale market. Some groups are seeking legislation to expand this authority to allow a non-utility third party renewable generator to sell electricity to existing retail customers of electric utilities through the utility’s lines and equipment. Clearly, this would be a substantial change to the regulatory compact, and such a scheme could result in significant rate increases for customers that do not buy from third party generators if they are required to subsidize those that purchase from third parties. The electric cooperatives believe that numerous issues must be resolved before serious consideration can be given to allow third party retail sales by renewable generators, including but not limited to the following:

* Does the utility have an obligation to provide power to a customer at times when its third party renewable generator is not able to provide all of the customer’s needs?
	+ If so, should this power be provided at the utility’s real time cost of providing energy or should the utility’s other customers be forced to subsidize the customer that has elected to use the third party generator?
	+ Should special rates be designed for customers that will be jumping on and off the grid?
* Who should pay for the system upgrades that are required to accommodate these intermittent generators, which could be much larger than what has been interconnected to date?
* Will the PSC or another agency have any jurisdiction over third party retailers to resolve disputes with utilities, and disputes between the customers and their renewable energy providers?
* Will anyone regulate the siting, installation, and the safety of these facilities?
* Can the utility require insurance from these third party operators or their customers, or is the utility and its general body of ratepayers required to pay for any damages to the utility’s system that are the sole responsibility of the third party generator or their customers?
* Should the tax codes be changed to insure that state and local governments do not see significant revenue losses?

Sales Tax/Review of Exemptions and Exclusions

In previous years, bills were filed that would require a review of all sales tax exemptions with the end goal of repealing some exemptions. The impact on Florida’s utilities and their ratepayers could be significant if some or all of the utility sales tax exemptions are repealed. For example, the additional cost of a new gas generation facility could be over $25 million if Section 212.08 (5) (c), F.S., is repealed. If the exemptions for boiler fuels, material components for operation, maintenance, and capital projects were removed, the additional recurring cost for Seminole would be approximately $30 million annually, unless these items are treated as a sale for resale. These costs would ultimately be borne by the ratepayers, including those residential accounts that presently are exempt from paying the sales tax on electricity pursuant to Section 212.08 (7) (j).

Energy Efficiency Standards and Public Education to Enhance Energy Conservation Efforts

In 2008 the Legislature passed two bills, HB 697 and HB 7135, to address energy efficiency of new buildings. The bills encourage the Florida Building Commission to adopt more energy efficient standards for new construction. In 2012, the Department of Agriculture’s Office of Energy was directed to develop a conservation and efficiency clearinghouse pursuant to HB 7117. The Office of Energy will maintain information on the cost savings associated with efficiency and conservation measures. This is a good start. However, if Florida is serious about energy efficiency, these codes need to be much stronger, especially for apartments and other rented structures where the tenant has little incentive or opportunity to make efficiency improvements to someone else’s property. In addition, the landlord has little incentive to make substantial capital improvements that will only provide savings to the tenant. The concept of build it cheap and then put pressure on the electric utility to retrofit the building is very inefficient.

Florida’s electric cooperatives have spent a great amount of effort educating their consumer-members about conservation and efficiency. In some cases, the cooperative has offered to subsidize their consumers’ conservation and energy efficiency projects. However, any success in this area is largely dependent upon consumers and their willingness to invest in conservation and energy efficiency projects, and to make personal choices on how they use energy.

Insights into the Challenges of Specific Electricity Generation Options

**Coal**

More than 40 percent of the electricity generated in the United States comes from coal. Coal remains a competitive fuel for electricity generation; coal can be stockpiled so fuel-related supply interruptions are very rare; and the United States has vast reserves of coal. However, coal has been vilified in recent years because of its emissions, even though the control equipment that is available today significantly reduces emission concentrations. Seminole, Clay Electric’s wholesale power provider, uses coal for approximately 50 percent of its generation. Seminole has invested more than $530 million in environmental controls at its coal generator and has a sterling record of environmental stewardship. Seminole’s use of coal has enabled Clay Electric to offer its members some of the most competitive electric rates in Florida. Our members benefit from our competitively priced power costs, as well as Seminole’s efforts to reduce emissions to meet new requirements. However, the future of coal is uncertain as the EPA continues to roll out new regulations and proposals such as the CCR regulation discussed earlier. If the EPA follows the current course, it will become increasingly expensive and difficult, if not impossible, to continue operating the existing coal plants.

**Natural Gas**

In the past several decades, utilities have come to rely more and more on natural gas as a generation fuel, but history has shown that the price of natural gas can been very volatile. Recently, new drilling techniques such as hydraulic fracking have created a surplus of natural gas. Prices have fallen and appear to be stable, but recent history has shown that utilities that depended heavily on natural gas were forced to pass dramatic cost increases on to their consumers when gas prices spiked. Policymakers’ efforts to push utilities toward natural gas and eliminate coal-fired plants are placing utilities in a precarious position, since natural gas transportation and storage is limited. If there is a supply interruption of natural gas, utilities are vulnerable. Hurricanes are a factor we must deal with in Florida, and for utilities, they are a huge concern. When oil and natural gas platforms were shut down in the Gulf of Mexico in 2005 due to Hurricane Katrina, natural gas supplies tightened in Florida and utilities came within hours of implementing rolling brownouts and blackouts. Natural gas may have lower carbon emissions per megawatt generated (approximately 50 percent less than coal), but reliability and price are its “Achilles Heel” as a generation fuel.

 **Nuclear Energy**

Recent history has shown how natural disasters can affect nuclear reactors internationally and domestically. Even though the reactors in the U.S. are different from those in Japan, the electric industry and the regulatory community have learned from the fallout of Japan’s earthquake and subsequent tsunami. Domestically, the earthquake in Virginia provided additional data about the safety of nuclear reactors, and reinforced the belief that our nuclear plants are designed to withstand natural disasters. Nuclear energy should play a key role in our energy future. Nuclear plants are reliable and have no carbon dioxide emissions. In 2010, the unit capacity factor (the fraction of a power plant’s capacity that it actually generates) for operating reactors in the United States reached a record 91 percent, compared to 58 percent in 1980 and 66 percent in 1990. In other words, nuclear power plants were running more than 90 percent of the time. The main advantages for nuclear is the relatively low cost fuel, zero emissions, and long track record of safe operation. The disposal of nuclear waste materials is a concern. Re-processing spent fuel may be an option to decrease some of the waste, but the Federal government has made very little progress on its commitment to develop a long-term storage strategy. The construction of a nuclear power plant is expensive and takes longer to build, compared to natural gas and coal-fired plants. However, we believe nuclear power is a viable choice for future energy generation in Florida.

**Renewable Resources**

There is a lot of interest in developing renewable energy resources. Some renewable fuels might be free, but the technologies used to convert that energy into electricity can be quite expensive. In addition, renewable energy cannot replace a significant portion of the existing base load electricity generation, and this will not change unless there are major technological breakthroughs. Solar water heating systems and photovoltaic (PV) systems are gaining in popularity with homeowners and businesses thanks to rebates, tax credits and other subsidies. However, even with these subsidies, solar PV systems are rarely cost effective. While some utilities have built relatively large PV systems, the public should not expect PV systems to provide large-scale power generation in Florida for some time to come. Wind power also is very expensive in Florida. It is doubtful that there is enough wind at sufficient speeds to make today’s commercially available wind turbines a viable “supplemental” energy source in Florida. Another concern is the environmental impacts of wind farms, which have generated opposition from wildlife and environmental groups that oppose increased bird and bat deaths, and spoiled landscapes.

 **Conservation and Efficiency**

Programs that promote energy conservation and energy efficiency can help consumers lower their electricity usage and their energy bills. Some conservation is free, such as turning off the light when you leave a room. Some measures, like a water heater timer, are not free but have a quick payback period. However, many programs require a substantial upfront payment and have a negative or very long payback period. Many utilities offer rebates to their consumers to offset the purchase of conservation and energy efficiency devices, however, the programs still require consumer buy-in. If Florida wants to address the issue, government leadership needs to involve the consumers in the conservation and efficiency movement, which will require consumers to make lifestyle changes.