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# **State Affairs Committee**

**Thursday, February 10, 2011  
10:15 AM  
Morris Hall**

**Dean Cannon  
Speaker**

**Seth McKeel  
Chair**

# Committee Meeting Notice

## HOUSE OF REPRESENTATIVES

### State Affairs Committee

**Start Date and Time:** Thursday, February 10, 2011 10:15 am  
**End Date and Time:** Thursday, February 10, 2011 12:15 pm  
**Location:** Morris Hall (17 HOB)  
**Duration:** 2.00 hrs

#### Overview of Electric Energy Issues

- Presentation on Utility Regulation
- Presentation on Current and Projected Electric Energy Sources

#### Overview of Numeric Nutrient Criteria Issues

- Presentation by the Department of Environmental Protection
- Update on Florida's Lawsuit Regarding the United States Environmental Protection Agency's Adoption of Numeric Nutrient Criteria for Florida Waters

**NOTICE FINALIZED on 02/03/2011 16:15 by Love.John**





# Municipal Electric Utilities and Rural Electric Cooperatives

## Introduction

Regulation of electric utilities in Florida varies based on the organization of the electric utility. There are three distinct types of electric utility organizations providing service in Florida: investor-owned electric utilities (defined in statute as “public utilities”), municipal electric utilities, and rural electric cooperatives. All three types of electric utilities are subject to the Public Service Commission’s (PSC) statutory authority to regulate electric system planning, reliability, and safety, which is discussed in the fact sheet “Regulation of Electric Utilities.”

Apart from the PSC’s oversight for system planning, reliability, and safety purposes, municipal electric utilities and rural electric cooperatives are largely self-regulated entities. They set their own rates and terms of service, and customer complaints are handled by the municipal utility or the rural cooperative. While the PSC has authority to prescribe a “rate structure” for these utilities, this authority is relatively limited when compared to the PSC’s rate-setting authority for investor-owned electric utilities.

This fact sheet addresses commonly asked questions concerning municipal electric utilities and rural electric cooperatives.

## Important Definitions

The term “municipal electric utility” is not defined in Florida law. For purposes of this fact sheet, a municipal electric utility is an electric utility, owned and operated by a municipality or an agency of a municipality in Florida, which sells electricity at retail to the public.

The term “rural electric cooperative” also is not defined in Florida law. However, the term “cooperative” is used in Florida’s Rural Electric Cooperative Law (RECL)<sup>1</sup> to refer to a cooperative, nonprofit, membership corporation organized under the RECL for the purpose of supplying electric energy and promoting and extending the use thereof in rural areas.<sup>2</sup> This description adequately defines rural electric cooperatives for purposes of this fact sheet.

## Municipal Electric Utilities

### Overview

There are 34 municipal electric utilities located throughout the state, serving approximately 2.8 million customers, or 25 percent of Florida's population. A map showing the municipal electric utilities in Florida can be found at [http://www.publicpower.com/pdf/stats/public\\_map.pdf](http://www.publicpower.com/pdf/stats/public_map.pdf). Links

<sup>1</sup> Chapter 425, F.S.

<sup>2</sup> Section 425.02, F.S. “Rural area” is defined in s. 425.03(1), F.S., as “any area not included within the boundaries of any incorporated or unincorporated city, town, village, or borough having a population in excess of 2,500 persons.” A “person” is defined in s. 425.03(2), F.S., as “any natural person, firm, association, corporation, business trust, partnership, federal agency, state or political subdivision or agency thereof, or any body politic.”

to the website for each municipality owning and operating an electric utility can be found at [http://www.publicpower.com/fmea\\_utilities.shtml](http://www.publicpower.com/fmea_utilities.shtml).

Of these utilities, thirteen – JEA (formerly Jacksonville Electric Authority), Orlando Utilities Commission, Kissimmee Utilities Authority, Lakeland Electric, Gainesville Regional Utilities, Tallahassee, New Smyrna Beach, Vero Beach, Fort Pierce, Homestead, Lake Worth, Key West, and Reedy Creek – own and operate power plants. Each of the remaining municipal electric utilities owns and operates only the distribution facilities, such as power lines, substations, and meters, used to deliver electricity to its retail customers. These utilities purchase electric power from other utilities or from the Florida Municipal Power Authority (FMPA).<sup>3</sup> They also purchase the transmission service necessary to deliver the power from the generating source to the municipal utility’s distribution system.

Municipal electric utilities are governed either by a local city commission or by an elected or appointed utility authority. Currently, there are six municipal electric utilities governed by a utility authority: Kissimmee Utility Authority, New Smyrna Beach Utilities Commission, JEA, Orlando Utilities Commission, Fort Pierce, and Keys Energy. Municipal electric utilities are also subject to Florida laws regarding the operations of government entities, including open meetings laws, open records laws, and public bidding laws.<sup>4</sup>

Municipal electric utilities are not-for-profit, though they often return money to the municipality’s general fund. Capital is raised through operating revenues or sale of tax-exempt bonds.<sup>5</sup>

### ***Service to Customers Outside of Municipal Boundaries***

Subject to the PSC’s authority over territorial agreements and disputes among electric utilities, municipal electric utilities often serve customers outside their municipal boundaries. If a municipal electric utility chooses to impose a surcharge on customers outside of its boundaries, the PSC, under its authority over the rate structure<sup>6</sup> of all electric utilities, may review the surcharge to determine whether a reasonable basis exists to justify the charge.<sup>7</sup> The PSC may order that the surcharge be eliminated if it finds no reasonable basis.<sup>8</sup>

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<sup>3</sup> FMPA was created by a group of member municipalities pursuant to the Florida Interlocal Cooperation Act of 1969, codified at Section 163.01, F.S. FMPA coordinates the power supply needs of several municipal electric utilities, providing economies of scale to these relatively small systems through development of larger, more efficient power plants, and diversifying risk by obtaining power from several power plants rather than depending on the operation and cost of fewer plants. Thirty municipal electric systems are members of FMPA. Each member appoints one representative to FMPA’s Board of Directors. Each member has the option whether or not to participate in a particular FMPA power supply project. Each project is independent from the others, so no revenues or funds available from one project can be used to pay the costs of another project. FMPA currently has five power supply projects. See <http://www.fmpa.com/> for more information about FMPA.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> While “rates” refers to the dollar amount charged for a particular service or an established amount of consumption, “rate structure” refers to the classification system used in justifying different rates. *City of Tallahassee v. Florida Public Service Commission*, 441 So.2d 620 (Fla. 1983)

<sup>7</sup>*Id.* See also Rule 25-9.052, F.A.C., which provides:

In the event the Commission determines that the rate structure of a utility may not be fair, just and reasonable, the Commission may initiate appropriate proceedings to prescribe a rate structure that is fair, just and reasonable. In so doing the Commission may, among other things, consider the cost of providing service to each customer class, as well as the rate history, value of service and experience of the utility, the

A municipality may, however, impose a surcharge on non-resident customers equal to the service tax imposed on customers within the municipality's corporate boundaries.<sup>9</sup> Such a surcharge results in equal overall charges to residents and non-residents.

### ***Rural Electric Cooperatives***

Under the Rural Electrification Act of 1936, not-for-profit cooperative associations (and other specified entities) became eligible to receive insured loans and loan guarantees from the U.S. Department of Agriculture for the purpose of financing the construction of electric distribution, transmission, and generation facilities to provide electric service in rural areas.<sup>10</sup> The U.S. Department of Agriculture operates this program today through the Rural Utilities Service (RUS). Rural electric cooperatives are still not-for-profit electric utilities that are owned by the members they serve and provide at-cost electric service to their members.

In Florida, rural electric cooperatives are governed by Chapter 425, F.S., the "Rural Electric Cooperative Act." The Act addresses the creation, membership, governance, and powers of rural electric cooperatives. Unlike municipal utilities that are governed in most cases by a board of elected officials, each cooperative is governed by a board of cooperative members who are elected by the membership of the cooperative.<sup>11</sup> Like municipal utilities, the rates and service of rural electric cooperatives are largely self-regulated.

Florida has 16 distribution cooperatives (serving retail customers) and 2 generation and transmission cooperatives (providing power to member distribution cooperatives for resale) that provide electricity to more than 1,000,000 members in 58 of Florida's 67 counties. While electric cooperatives only serve 10% of Florida's population, their service territory covers more than 60% of Florida's land mass. A listing of these cooperatives and a map of their service territories can be found at <http://www.feca.com/members.html>.

Florida's electric cooperatives are relatively small electric utilities and often work together to achieve scales of economy that they cannot achieve on their own. For example, many of Florida's distribution cooperatives that serve retail customers are members of a generation and transmission cooperative that generates and purchases electrical power and delivers it to its member-cooperatives for resale to end-use customers. In peninsular Florida, Seminole Electric Cooperative, based in Tampa, serves as a generation and transmission provider for retail-serving

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consumption and load characteristics of the various classes of customers and the public acceptance of rate structures. The following principles may also be considered: simplicity, freedom from controversy, rate stability, fairness in apportioning costs, avoidance of undue discrimination and encouragement of efficiency

<sup>8</sup> *Id.* The Florida Supreme Court upheld an order of the PSC eliminating such a surcharge based on findings that the surcharge was not justified on a cost-of-service basis; that the classification of customers by location within or without the municipality's corporate limits was unduly discriminatory; and that the provision of other municipal service to non-residents did not justify the surcharge.

<sup>9</sup> Rule 25-9.0525, F.A.C.

<sup>10</sup> 7 U.S.C. 901-918a. The Act defines "rural area" as any area of the United States not included within the boundaries of any urban area, as defined by the Bureau of the Census, including both the farm and nonfarm population the area.

<sup>11</sup> Section 425.10, F.S.

cooperatives. In northwest Florida, PowerSouth Energy Cooperative, based in Alabama, serves as a generation and transmission service provider for four retail-serving cooperatives.

**Relevant Florida Statutes, Administrative Rules, and Federal Laws and Regulation**

**Florida Statutes:**

Section 163.01, F.S.

Chapter 361, Part II, F.S.

Chapter 366, F.S.

Chapter 425, F.S.

**Federal Law:**

7 U.S.C. 901-918a

**Additional information**

For additional information concerning the matters addressed in this fact sheet, please contact or refer to the following:

**Florida Municipal Electric Association**

Barry J. Moline, Executive Director - (850) 224-3314, ext. 1

<http://www.publicpower.com/contact.shtml>

**Florida Electric Cooperatives Association**

(850) 877-6166

<http://www.feca.com/index.html>

**Florida Public Service Commission**

Division of Economic Regulation - Marshall Willis, Director - 413-6900

Division of Service, Safety and Consumer Assistance - Dan Hoppe, Director - 413-6480

<http://www.psc.state.fl.us/>

**Florida House of Representatives**

Energy & Utilities Subcommittee

(850) 487-1342







# Regulation of All Electric Utilities (System Planning & Reliability, Safety & Health)

## Introduction

Regulation of electric utilities in Florida varies based on the organization of the electric utility. There are three distinct types of electric utility organizations providing service in Florida: investor-owned electric utilities (defined in statute as “public utilities”), municipal electric utilities, and rural electric cooperatives. All three types of electric utilities are subject to the Public Service Commission’s (PSC) authority over electric system planning, reliability, and safety. In addition, the PSC has authority over the “rate structure” of all electric utilities, though it may set rates only for investor-owned utilities.

Certain aspects of the electric utility business are regulated by the Federal Energy Regulatory Commission (FERC). In particular, FERC regulates wholesale power transactions and oversees electric system reliability on a national level.

The PSC has broad authority to regulate the rates and service of Florida’s five investor-owned electric utilities, which serve the majority of electric customers in the state. Regulation specific to investor-owned electric utilities is discussed in a separate fact sheet. This fact sheet addresses only those regulatory issues common to all electric utilities in Florida.

## Important Definitions

Florida law distinguishes “public utilities” from “electric utilities” for regulatory purposes. “Electric utility” is a broad term encompassing “any municipal electric utility, investor-owned electric utility, or rural electric cooperative which owns, maintains, or operates an electric generation, transmission, or distribution system within the state.”<sup>1</sup> “Public utility” refers only to an investor-owned utility.

The term “public utilities” is defined as “every person, corporation, partnership, association, or other legal entity and their lessees, trustees, or receivers supplying electricity or gas (natural, manufactured, or similar gaseous substance) to or for the public within this state . . . .” This definition specifically excludes: rural electric cooperatives; municipal electric utilities; special natural gas districts; natural gas transmission pipeline companies making only sales or delivery at wholesale or to direct industrial users; entities making sales of natural gas but neither owning nor operating transmission or distribution facilities in Florida; and persons supplying liquefied petroleum (LP) gas.<sup>2</sup> Each public utility has a statutory obligation to serve every customer within its service territory.<sup>3</sup>

<sup>1</sup> Section 366.02(2), F.S.

<sup>2</sup> Section 366.02(1), F.S.

<sup>3</sup> Section 366.03, F.S.

## **System Planning and Reliability**

In 1974, the “Grid Bill” became law, making the PSC responsible for oversight of the state’s electric grid. The Grid Bill, now reflected in parts of Chapter 366, F.S., grants the PSC jurisdiction over:

“the planning, development, and maintenance of a coordinated electric power grid throughout Florida to assure an adequate and reliable source of energy for operational and emergency purposes in Florida and the avoidance of further uneconomic duplication of generation, transmission, and distribution facilities.”<sup>4</sup>

This broad grant of authority covers all electric utilities that own or operate portions of the electric grid in Florida. In addition, with respect to system reliability and planning, the PSC has jurisdiction over all electric utilities for the following purposes:

- To require electric power conservation and reliability within a coordinated grid, for operational as well as emergency purposes<sup>5</sup>
- To approve territorial agreements and resolve territorial disputes between and among rural electric cooperatives, municipal electric utilities, and other electric utilities under its jurisdiction<sup>6</sup>
- To require reports from all electric utilities to assure the development of adequate and reliable energy grids<sup>7</sup>
- To require installation or repair of necessary facilities, including generating plants and transmission facilities, if it finds that inadequacies exist with respect to the energy grids developed by the electric utility industry, including inadequacies in fuel diversity or fuel supply reliability<sup>8</sup>

### **Ten-Year Site Plans**

A major tool used by the PSC to oversee electric system planning is its annual review of Ten-Year Site Plans that must be filed by electric utilities that own generating plants,<sup>9</sup> in conjunction with plans filed by the Florida Reliability Coordinating Council (FRCC),<sup>10</sup> which compiles individual utility data concerning power generation and transmission needs and utility’s plans to meet those needs. Each electric utility’s Ten-Year Site Plan must provide an estimate of the utility’s power-generating needs and the general location of its proposed power plant sites over a 10 year planning period.<sup>11</sup>

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<sup>4</sup> Section 366.04(5), F.S.

<sup>5</sup> Section 366.04(2)(c), F.S.

<sup>6</sup> Section 366.04(2)(d) and (e), F.S.

<sup>7</sup> Section 366.05(7), F.S.

<sup>8</sup> Section 366.05(8), F.S.

<sup>9</sup> Section 186.801, F.S.

<sup>10</sup> The FRCC serves as one of eight regional entities in the U.S. with delegated authority from the North American Electric Reliability Corporation (NERC) for the purpose of proposing and enforcing reliability standards within the FRCC Region. Its purpose is to ensure that the bulk power system in Peninsular Florida is reliable, adequate and secure. Its activities are directed by a Board of Directors comprised of top level executives from each of its members (primarily electric utilities). The FRCC covers peninsular Florida east of the Apalachicola River. The remainder of the Florida panhandle is covered by a separate entity, the Southeastern Electric Reliability Council. See <https://www.frcc.com/Default.aspx> for more details.

<sup>11</sup> *Id.*

The PSC reviews these plans and determines whether each is “suitable” or “unsuitable.” In making this determination, the PSC must consider:

- The need for electrical power in the area to be served
- The effect on fuel diversity within the state
- Anticipated environmental impacts
- Possible alternatives to each proposed plan
- The views of appropriate local, state, and federal agencies, including the appropriate water management district’s views as to water availability for proposed plants
- Consistency with the state comprehensive plan<sup>12</sup>

### ***Reserves***

Florida law requires all electric utilities in the Florida energy grid to make their energy reserves available at all times to ensure that grid reliability and integrity are maintained.<sup>13</sup> Toward this end, the PSC has the power to require any electric utility to transmit electrical energy over its transmission lines from one utility to another or as a part of the total energy supply of the entire grid.<sup>14</sup>

The PSC requires each utility to maintain sufficient generating capacity to meet all reasonable demands for service and to provide a reasonable reserve for emergencies.<sup>15</sup> To achieve an equitable sharing of energy reserves, the PSC requires that each utility within the FRCC region (peninsular Florida east of the Apalachicola River) maintain a minimum 15% planned reserve margin.<sup>16</sup> A planned reserve margin is the percentage amount of electrical generating capacity a utility must plan to have available above and beyond the capacity required to serve the utility’s expected peak load.<sup>17</sup> By stipulation approved by the PSC, many utilities in the FRCC region – including Florida Power & Light Company, Progress Energy Florida, and Tampa Electric Company – employ a higher minimum reserve margin of 20%. Each utility’s Ten-Year Site Plan should reflect its plans to satisfy these criteria.

In addition, the PSC requires utilities in the FRCC region to collectively maintain a minimum operating reserve margin on a day-to-day basis.<sup>18</sup> The operating reserve required for the FRCC region is an amount of generation equal to or greater than the loss of generation that would result from the failure of the largest single generating unit in the region at any given time.<sup>19</sup>

The PSC has adopted a plan to address emergency shortages in generating capacity.<sup>20</sup> In addition, the PSC’s rules require that utilities keep records of major service interruptions and

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<sup>12</sup> *Id.*

<sup>13</sup> Section 366.055(1), F.S.

<sup>14</sup> Section 366.055(3), F.S.

<sup>15</sup> Rule 25-6.035, F.A.C. It is not clear if this rule applies to all electric utilities or to investor-owned utilities only.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> Rule 25-6.0183, F.A.C.

notify the PSC of threats to the bulk power supply.<sup>21</sup> Utilities are also required to maintain PSC-approved plans to establish a means of anticipating, assessing, and responding to a long-term emergency caused by a fuel supply shortage.<sup>22</sup>

## ***Electrical Power Plant Siting***

### ***Electrical Power Plant Siting Act***

Most major power plants constructed in Florida must first receive approval under Florida's Electric Power Plant Siting Act (PPSA).<sup>23</sup> The PPSA establishes a centralized and coordinated process, administered by the Florida Department of Environmental Protection (DEP), for licensing large power plants.<sup>24</sup> Specifically, the PPSA applies to any steam or solar electrical generating facility with a capacity of 75 megawatts or more and using any process or fuel, including nuclear materials.<sup>25</sup> Unless certification is requested pursuant to the PPSA, all other electrical generating facilities must obtain any necessary state agency and local government approvals separately.

Certification of a power plant under the PPSA replaces local and state permits.<sup>26</sup> Local governments within whose jurisdiction the power plant is to be built and other state agencies participate in the certification process by identifying preliminary issues, submitting relevant reports, and participating as parties in the certification hearing.<sup>27</sup> Before a certification hearing can go forward, the PSC must determine that there is a need for the proposed plant under s. 403.519, F.S.<sup>28</sup> The determination of need process is discussed below. Upon receipt of a timely determination of need from the PSC, DEP must conduct a project analysis that includes:

- A statement indicating whether the proposed electrical power plant and proposed ultimate site capacity will be in compliance with and consistent with matters within the DEP's standard jurisdiction, including the DEP rules, as well as whether the proposed electrical

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<sup>21</sup> Rule 25-6.018, F.A.C.

<sup>22</sup> Rule 25-6.0185, F.A.C.

<sup>23</sup> Sections 403.501-.518, F.S.

<sup>24</sup> Sections 403.502 and 403.504, F.S.

<sup>25</sup> Sections 403.503(15) and 403.506(1), F.S. An electric utility may apply for certification of a power plant under the PPSA even if not required to do so by law.

<sup>26</sup> Section 403.511, F.S.

<sup>27</sup> Sections 403.507(2) and 403.508(3), F.S. The Department of Community Affairs must prepare a report with recommendations addressing the proposed plant's impact, based on the degree to which the electrical power plant is consistent with the applicable portions of the state comprehensive plan, emergency management, and other such matters within its jurisdiction. The Department of Community Affairs may also comment on the consistency of the proposed electrical power plant with applicable strategic regional policy plans or local comprehensive plans and land development regulations. The appropriate water management district must prepare a report addressing the proposed plant's impact on water resources, regional water supply planning, and district-owned lands and works. Each affected local government must prepare a report addressing the consistency of the proposed electrical power plant with all applicable local ordinances, regulations, standards, or criteria, including any applicable local environmental regulations adopted pursuant to s. 403.182 or by other means. The Fish and Wildlife Conservation Commission must prepare a report addressing matters within its jurisdiction. Each regional planning council must prepare a report containing recommendations addressing the proposed plant's impact, based on the degree to which the electrical power plant is consistent with the applicable provisions of the strategic regional policy plan adopted pursuant to chapter 186 and other matters within its jurisdiction. The Department of Transportation must address the proposed plant's impact on matters within its jurisdiction. DEP may request that any other agency perform studies or prepare reports as to matters within that agency's jurisdiction which may potentially be affected by the proposed electrical power plant.

<sup>28</sup> Section 403.507(4), F.S.

power plant and proposed ultimate site capacity will be in compliance with the nonprocedural requirements of the affected agencies

- Copies of the required local government and state agency studies and reports
- Comments received by DEP from any other agency or person
- DEP's recommendation as to the disposition of the application, of variances, exemptions, exceptions, or other relief identified by any party, and of any proposed conditions of certification which DEP believes should be imposed
- DEP's recommendation, if available, regarding the issuance of any license required pursuant to a federally delegated or approved permit program<sup>29</sup>

The certification process addresses permitting, land use and zoning, and property interests. An administrative law judge is appointed by the director of the Division of Administrative Hearings to conduct any required hearings, including the certification hearing and any land use hearing that may be requested to address issues concerning a project's consistency with local land use plans and zoning ordinances.<sup>30</sup> At the conclusion of the certification hearing, the administrative law judge must submit a recommended order to the Governor and Cabinet sitting as the siting board.<sup>31</sup>

The siting board must act upon the application by written order, approving or denying certification and stating the reasons for issuance or denial.<sup>32</sup> In its deliberations, the siting board must consider whether, and the extent to which, the location, construction, and operation of the electrical power plant will:

- Provide reasonable assurance that operational safeguards are technically sufficient for the public welfare and protection
- Comply with applicable nonprocedural requirements of agencies
- Be consistent with applicable local government comprehensive plans and land development regulations
- Meet the electrical energy needs of the state in an orderly, reliable, and timely fashion
- Effect a reasonable balance between the need for the facility as determined by the PSC and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from the construction and operation of the facility
- Minimize, through the use of reasonable and available methods, the adverse effects on human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life
- Serve and protect the broad interests of the public<sup>33</sup>

Subject to any conditions set forth therein, a certification grants approval for the location of the power plant and its associated facilities such as a natural gas pipeline supplying the plant's fuel,

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<sup>29</sup> Section 403.507(5), F.S.

<sup>30</sup> Sections 403.5065 and 403.508, F.S.

<sup>31</sup> Section 403.508, F.S.

<sup>32</sup> Section 403.509, F.S.

<sup>33</sup> *Id.*

rail lines for bringing coal to the site, and roadways and electrical transmission lines carrying power to the electrical grid, among others.<sup>34</sup>

*Determination of Need for an Electrical Power Plant*

As noted above, the PSC must determine that there is a need for a proposed electrical power plant before a certification hearing under the PPSA can proceed. By law, the PSC is designated as the sole forum for making this determination.<sup>35</sup> The type of review required of the PSC varies based on the type of power plant at issue.

In determining the need for any electrical power plant other than a nuclear or integrated gasification combined cycle (IGCC) power plant, the PSC is required to take into account:

- The need for electric system reliability and integrity
- The need for adequate electricity at a reasonable cost
- The need for fuel diversity and supply reliability
- Whether the proposed plant is the most cost-effective alternative available
- Whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available<sup>36</sup>

In determining the need for a nuclear or IGCC power plant, the PSC is required to consider:

- The need for electric system reliability and integrity, including fuel diversity
- The need for base-load generating capacity
- The need for adequate electricity at a reasonable cost
- Whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available<sup>37</sup>

For a nuclear or IGCC power plant, the law also requires the PSC to take into account whether the proposed plant will:

- Provide needed base-load capacity
- Enhance the reliability of electric power production within the state by improving the balance of power plant fuel diversity and reducing Florida's dependence on fuel oil and natural gas
- Provide the most cost-effective source of power, taking into account the need to improve the balance of fuel diversity, reduce Florida's dependence on fuel oil and natural gas, reduce air emission compliance costs, and contribute to the long-term stability and reliability of the electric grid.

For purposes of determining whether a proposed electrical power plant is the most cost-effective alternative available, the PSC's rules require that each utility, prior to requesting a determination of need, evaluate other supply-side options to its planned power plant through the use of a

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<sup>34</sup> Sections 403.503(15) and 403.511, F.S.

<sup>35</sup> Section 403.519(3), F.S.

<sup>36</sup> *Id.*

<sup>37</sup> Section 403.519(4), F.S.

request for proposals (RFP) process.<sup>38</sup> This requirement does not apply to proposed nuclear or IGCC power plants.<sup>39</sup>

Regardless of the type of power plant at issue, the PSC's determination of need order serves as its report required under the Power Plant Siting Act.

## ***Transmission Line Siting***

### ***Transmission Line Siting Act***

The Transmission Line Siting Act (TLSA) establishes a centralized and coordinated process, administered by the Florida Department of Environmental Protection, for licensing large transmission line projects.<sup>40</sup> In general, the TLSA applies to electrical transmission lines that are 230 kilovolts (kV) or larger, cross a county line, and are 15 miles or longer.<sup>41</sup> Unless certification is requested pursuant to the TLSA, all other transmission lines must obtain any necessary state agency or local government approvals separately.<sup>42</sup>

The TLSA is similar in many respects to the Power Plant Siting Act. Both require that the Governor and Cabinet, sitting as the siting board, approve or deny certification<sup>43</sup> and that the Florida Department of Environmental Protection (DEP) act as lead agency, compiling relevant agency reports as well as addressing its own jurisdictional interests.<sup>44</sup> In both laws, certification covers other agency permits and life-of-the-facility certification. Both also provide the opportunity for public involvement.

There are two main differences between the TLSA and the Power Plant Siting Act. First, the TLSA does not provide for a land use and zoning hearing. Second, parties to a TLSA proceeding can propose transmission line corridors<sup>45</sup> alternate in location to the ones proposed by the applicant. After review, an alternate corridor may be the corridor certified.<sup>46</sup>

Because transmission line corridors can be up to a mile wide and several hundred miles long, many alternates can be proposed and must be reviewed. An exact right-of-way location is seldom reviewed during TLSA proceedings. Thus, post-certification review is used extensively in the TLSA following right-of-way selection.

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<sup>38</sup> Rule 25-22.082, F.A.C.

<sup>39</sup> Section 403.519(4)(c), F.S.

<sup>40</sup> Sections 403.521 and 403.523, F.S.

<sup>41</sup> Sections 403.522(2) and 403.524, F.S. Section 403.524(2)(d), F.S., identifies exemptions for certain lines.

<sup>42</sup> Section 403.524(3), F.S.

<sup>43</sup> Section 403.529, F.S.

<sup>44</sup> Sections 403.523 and 403.526, F.S.

<sup>45</sup> "Corridor" is defined as the proposed area within which a transmission line right-of-way, including maintenance and access roads, is to be located. The width of a corridor proposed for certification may be the width of the transmission line right-of-way or a wider boundary not greater than a width of 1 mile. The area within the corridor in which a right-of-way may be located may be further restricted by a condition of certification. After all property interests required for the transmission line right-of-way and maintenance and access roads have been acquired by the applicant, the boundaries of the area certified are narrowed to only that land within the boundaries of the transmission line right-of-way. Section 403.522(10), F.S.

<sup>46</sup> Section 403.5271, F.S.

The siting board must act upon an application by issuing a written order approving or denying certification and stating the reasons for issuance or denial.<sup>47</sup> In its deliberations, the siting board must consider whether, and the extent to which, the location of the transmission line corridor and the construction, operation, and maintenance of the transmission line will:

- Ensure electric power system reliability and integrity
- Meet the electrical energy needs of the state in an orderly, economical, and timely fashion
- Comply with applicable nonprocedural requirements of agencies
- Be consistent with applicable local government comprehensive plans
- Effect a reasonable balance between the need for the transmission line as a means of providing reliable, economically efficient electric energy, as determined by the PSC and the impact upon the public and the environment resulting from the location of the transmission line corridor and the construction, operation, and maintenance of the transmission lines<sup>48</sup>

Certification by the siting board constitutes a license for a corridor<sup>49</sup> and the construction, operation, and maintenance of transmission lines within the corridor with any changes or conditions required by the siting board.<sup>50</sup>

#### Determination of Need for a Transmission Line

The PSC must determine that there is a need for a proposed transmission line before a certification hearing under the TLSA can proceed.<sup>51</sup> By law, the PSC is designated as the sole forum for making this determination.<sup>52</sup>

In determining the need for a transmission line, the PSC is required to consider:

- The need for electric system reliability and integrity
- The need for abundant, low-cost electrical energy to assure the economic well-being of the residents of Florida
- The appropriate starting and ending point of the line
- Any other matters within its jurisdiction deemed relevant<sup>53</sup>

The PSC traditionally also considers the cost of the proposed transmission line as compared to other alternatives, such as alternative transmission line routes or building additional generation closer to the load to be served by the proposed line.

The PSC's determination of need for the proposed transmission line is binding on all parties to any certification proceeding under the TLSA.<sup>54</sup>

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<sup>47</sup> Section 403.529, F.S.

<sup>48</sup> Section 403.529(4), F.S.

<sup>49</sup> See footnote 41, *supra*, for the definition of a "corridor."

<sup>50</sup> Sections 403.522(7) and 403.531, F.S.

<sup>51</sup> Section 403.537(1)(d), F.S.

<sup>52</sup> Section 403.537(1)(b), F.S.

<sup>53</sup> Section 403.537(1)(c), F.S.

<sup>54</sup> Section 403.537(1)(d), F.S.



## **Safety and Health**

The PSC has exclusive jurisdiction to prescribe and enforce safety standards for transmission and distribution facilities of all electric utilities. In adopting safety standards, the PSC must, at a minimum, adopt any new edition of the National Electrical Safety Code (ANSI C2) (“NESC”). Florida law designates the PSC as the administrative authority referred to in the NESC.<sup>55</sup>

Pursuant to this authority, the PSC’s rules adopt and incorporate by reference the 2002 edition of the NESC as the applicable safety standards for transmission and distribution facilities subject to its safety jurisdiction. The PSC’s rules provide that the 2007 NESC applies to electrical facilities constructed on or after February 1, 2007.<sup>56</sup>

To enforce these standards, the PSC requires that each electric utility submit all completed work orders on a quarterly basis. PSC staff engineers conduct compliance inspections on a random basis or as otherwise appropriate.<sup>57</sup>

Each electric utility is required to report, within one business day, any accident occurring in connection with any part of its transmission or distribution facilities which involves death or injury requiring hospitalization of nonutility persons or is otherwise significant from a safety standpoint in the judgment of the utility. In addition, each electric utility is required to report, within 30 days, each accident or malfunction occurring in connection with any part of its transmission or distribution facilities which involves damage to the property of others in an amount in excess of \$5,000 or, in the judgment of the utility, causes significant damage to the utility’s facilities. Reports are not required with respect to personal injury, death, or property damage resulting from vehicles striking poles or other utility property.<sup>58</sup>

The DEP is responsible for establishing requirements that reasonably protect the public health and welfare from the electric and magnetic fields of transmission lines proposed for certification under the Transmission Line Siting Act, discussed above.<sup>59</sup>

## **Relevant Florida Statutes, Administrative Rules, and Federal Laws and Regulation**

### **Florida Statutes:**

Chapter 366, F.S.

Section 186.801, F.S.

Chapter 403, Part II, F.S.

### **Florida Administrative Code:**

Chapter 25-6, F.A.C.

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<sup>55</sup> Section 366.04(6), F.S.

<sup>56</sup> Rule 25-6.0345, F.A.C.

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> Sections 403.061(30) and 403.523(10), F.S.

## ***Florida House of Representatives***

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Rules 25-22.071-.082, F.A.C.

Chapter 62-17, F.A.C.

Chapter 62-814, F.A.C.

### ***Additional information***

For additional information concerning the matters addressed in this fact sheet, please contact or refer to the following:

#### ***Florida Public Service Commission***

Division of Economic Regulation - Marshall Willis, Director - 413-6900

Division of Service, Safety and Consumer Assistance - Dan Hoppe, Director - 413-6480

<http://www.psc.state.fl.us/>

#### ***Florida Department of Environmental Protection***

Siting Coordination Office - Mike Halpin, Program Administrator

Phone: 850-245-2002

<http://www.dep.state.fl.us/siting/default.htm>

#### ***Florida House of Representatives***

Energy & Utilities Subcommittee

(850) 487-1342





# Regulation of Investor-Owned Electric Utilities (Rates and Service)

## Introduction

The Public Service Commission (PSC) has broad authority to regulate the retail rates and service of Florida's five investor-owned electric utilities<sup>1</sup> – Florida Power & Light Company, Progress Energy Florida, Tampa Electric Company, Gulf Power Company, and Florida Public Utilities Company – which serve the majority of all electric customers in the state. The rates and terms of service approved by the PSC are set forth in tariffs kept on file with the PSC and each utility. Often, the utility makes its tariffs available online.

In addition to regulating the retail rates and service of these public utilities, the PSC has jurisdiction over the utilities' system planning, reliability, and safety. The latter issues are discussed in a separate fact sheet titled "Regulation of Electric Utilities," which discusses regulatory issues common to investor-owned electric utilities, municipal electric utilities, and rural electric cooperatives.<sup>2</sup> This fact sheet addresses regulation particular to investor-owned electric utilities.

## Important Definitions

Florida law distinguishes "public utilities" from "electric utilities" for regulatory purposes. "Electric utility" is a broad term encompassing "any municipal electric utility, investor-owned electric utility, or rural electric cooperative which owns, maintains, or operates an electric generation, transmission, or distribution system within the state."<sup>3</sup> "Public utility" refers only to an investor-owned utility.

"Public utilities" are defined as "every person, corporation, partnership, association, or other legal entity and their lessees, trustees, or receivers supplying electricity or gas (natural, manufactured, or similar gaseous substance) to or for the public within this state . . . ." This definition specifically excludes: rural electric cooperatives; municipal electric utilities; special natural gas districts; natural gas transmission pipeline companies making only sales or delivery at wholesale or to direct industrial users; entities making sales of natural gas but neither owning nor operating transmission or distribution facilities in Florida; and persons supplying liquefied petroleum (LP) gas.<sup>4</sup>

<sup>1</sup> Investor-owned electric utilities are referred to in Chapter 366, F.S., as "public utilities."

<sup>2</sup> Collectively, these three types of utilities are referred to in Chapter 366, F.S., as "electric utilities."

<sup>3</sup> Section 366.02(2), F.S.

<sup>4</sup> Section 366.02(1), F.S.

## ***Rates and Charges***

The PSC is responsible for setting the rates charged by Florida's investor-owned electric utilities (IOUs).<sup>5</sup> An IOU may not charge customers any rate that has not been approved by the PSC.<sup>6</sup> The rates set by the PSC must allow the utility to: (a) recover its costs of providing service; and (b) earn a fair rate of return on its investment in utility property.<sup>7</sup>

The rates charged by Florida's investor-owned electric utilities are comprised primarily of base rates and cost recovery clause charges, all of which must be approved by the PSC. A breakdown of the current rates and charges for each IOU can be found online at <http://www.psc.state.fl.us/utilities/electricgas/>.

### ***Base Rates***

In general, base rates for an IOU are set at a level that allows the utility to recover the costs of its capital investments and the operations and maintenance expenses, including administrative expenses, required to produce and deliver electricity. These charges also must provide for a return on the utility's investment. Base rates are changed in rate case proceedings, which occur only as needed. Base rate charges are typically shown on a residential customer's bill as a "customer charge" and a "non-fuel energy charge." Commercial and industrial customers also typically see a "demand charge" on their bills.

In a rate case, the PSC requires the regulated utility to provide several detailed schedules showing recent historical costs and projected costs for every type of cost incurred by the utility to provide its regulated service.<sup>8</sup> PSC staff review these schedules, audit the utility's books, and conduct additional discovery (requests for information and documents) to help the PSC determine what level of costs are reasonable for purposes of providing service. The PSC must take final action in a rate case within 12 months after the date that the utility meets the minimum filing requirements established by PSC rule.<sup>9</sup>

In a rate case, the PSC must also establish a fair rate of return for the IOU to earn on its investment.<sup>10</sup> Typically, the utility and consumer advocates file opposing testimony as to the appropriate rate of return necessary to compensate the utility and ensure availability of capital for utility infrastructure. The PSC weighs this testimony and sets a rate of return that it believes is most reasonable. The PSC typically authorizes the utility to earn within a range of 100 basis points (1%) higher or lower than the specific rate of return established by the PSC.

Each IOU must file monthly Earnings Surveillance Reports with the PSC so that the PSC can monitor the utility's earnings.<sup>11</sup> If earnings exceed the authorized range, the PSC or the utility may initiate a proceeding to reduce base rates. If earnings fall below the authorized range, the

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<sup>5</sup> Sections 366.04(1), 366.041, 366.05(1), and 366.06, F.S.

<sup>6</sup> Sections 366.03 and 366.06, F.S.

<sup>7</sup> Sections 366.041(1) and 366.06(1), F.S.

<sup>8</sup> Section 366.06(1), F.S.

<sup>9</sup> Section 366.06(3), F.S.; Rule 25-6.043, F.A.C.

<sup>10</sup> Section 366.041(1), F.S.

<sup>11</sup> Rule 25-6.1352, F.A.C.

PSC or the utility may initiate a proceeding to increase rates. Any other party (e.g., Public Counsel or another consumer advocate) may request that the PSC initiate a proceeding to increase or decrease rates, though these parties do not have the authority to initiate a proceeding on their own.

### ***Interim Rates***

During any proceeding to change rates, the PSC may authorize the imposition of interim rates to be effective pending completion of the underlying rate proceeding. Any party to the rate proceeding may file a petition for an interim increase or decrease in rates if it can demonstrate that the utility is earning a rate of return outside the range calculated under the interim rate statute.<sup>12</sup> The PSC may also impose interim rates on its own motion.<sup>13</sup> The interim rate process provides a mechanism to ensure that utilities do not bear the burden of unreasonably low rates pending the final outcome of a rate case and that customers do not bear the burden of rates that are ultimately deemed to have been unreasonably high.

The interim rate process follows a statutory formula that allows the PSC to make a quick but rough determination as to whether the utility is earning a fair rate of return through its existing rates.<sup>14</sup> If the PSC determines that existing rates are too low for the utility to cover its costs and earn the minimum rate of return calculated pursuant to the interim rate statute, it must approve an interim rate increase pending completion of the underlying rate proceeding. The additional revenues collected by the utility through an interim rate increase are held subject to refund with interest. If the PSC determines at the conclusion of the underlying rate proceeding that lower rates are appropriate, it will order a refund to ratepayers of some or all interim rate revenues plus interest.<sup>15</sup>

If the PSC determines that existing rates are higher than necessary for the utility to earn the maximum rate of return calculated pursuant to the interim rate statute, it must allow the utility to collect its previously authorized rates, provided that the utility holds the “excess” revenues from those rates subject to refund with interest. If the PSC determines at the conclusion of the underlying rate proceeding that lower rates are appropriate, it will order a refund to ratepayers of some or all interim rate revenues plus interest.<sup>16</sup>

### ***Cost Recovery Clause Charges***

Cost recovery clauses provide for an annual review of certain expenses that are subject to frequent and significant short term changes or where the law has specifically provided for such recovery. These expenses are not recovered through base rates. The separation of these charges from base rates allows them to be adjusted outside of the relatively expensive and time-consuming rate case process and without consideration of the utility’s overall rate of return.

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<sup>12</sup> Section 366.071(1) and (5), F.S.

<sup>13</sup> Section 366.071(1), F.S.

<sup>14</sup> This formula is set forth in section 366.071(5), F.S.

<sup>15</sup> Section 366.071(2), F.S.

<sup>16</sup> *Id.*

These charges are adjusted at least annually, though they may be adjusted more frequently to reflect significant differences between forecast costs and actual costs incurred.

There are currently four cost recovery clause charges that make up part of each investor-owned utility's total bill, as shown below. As noted below, two of these mechanisms – the environmental cost recovery clause and the energy conservation cost recovery clause – are specifically established or authorized by statute. The other two mechanisms – the fuel and purchased power cost recovery clause and the capacity cost recovery clause – were adopted by the PSC pursuant to its general statutory authority to set rates, though other provisions of law recognize these mechanisms by reference.<sup>17</sup> All of these mechanisms are specifically exempt from general agency rulemaking requirements,<sup>18</sup> though the PSC has adopted rules concerning the energy conservation cost recovery clause. Further, as required by statute, the PSC has adopted rules concerning the recovery of certain nuclear power plant costs through the capacity cost recovery charge.

#### *Fuel & Purchased Power Cost Recovery Charge*

The Fuel & Purchased Power Cost Recovery Charge primarily covers a utility's cost of fuel burned to generate electricity. It also covers the energy costs associated with a utility's wholesale power purchases.<sup>19</sup> This charge is adjusted at least annually to reflect only costs that the PSC determines were actually and prudently incurred. This charge is typically shown on a customer's bill as either a "fuel charge" or an "energy charge" and today can comprise over 50% of a customer's total bill. This cost recovery mechanism is established through PSC orders and has existed in some form since at least 1959.<sup>20</sup>

#### *Capacity Cost Recovery Charge*

The Capacity Cost Recovery Charge covers the capacity costs associated with a utility's wholesale power purchases, which are made to supplement the utility's own fleet of generation capacity.<sup>21</sup> This charge is adjusted at least annually to reflect only costs that the PSC determines were actually and prudently incurred. This charge is typically shown on a residential customer's bill as part of the "non-fuel energy charge" and on a commercial or industrial customer's bill as part of the "demand charge." This cost recovery mechanism was established through a PSC order in 1992.<sup>22</sup>

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<sup>17</sup> See, e.g., section 166.231, F.S. (exempting "fuel adjustment charges" from the municipal public service tax on electricity purchases), and section 366.93, F.S. (authorizing a utility to recover certain costs associated with new nuclear power plants through the utility's "capacity cost recovery clause" charges).

<sup>18</sup> Section 120.80(13)(a), F.S.

<sup>19</sup> Wholesale power purchases may be solely for "energy" or for both "energy and capacity." An "energy" purchase entitles the purchasing utility to an agreed upon amount of electrical energy (measured in megawatt-hours or "MWh") produced by the selling utility. The cost of such a purchase typically covers the fuel and other variable costs necessary to produce the energy. A "capacity" purchase requires the selling utility to commit a fixed portion of its generating facilities' capacity to produce energy (measured in megawatts or "MW") for use by the purchasing utility. The purchasing utility can rely on this commitment in lieu of the capacity that would be provided by one of its own power plants. The cost of such a purchase typically covers the fixed costs associated with the physical plant providing the capacity.

<sup>20</sup> See PSC Order No. 2515-A, issued April 24, 1959.

<sup>21</sup> See footnote 16, above.

<sup>22</sup> PSC Order No. 25773, issued February 24, 1992, in Docket No. 910794-EQ.

Since January 1, 2009, two investor-owned electric utilities – Florida Power & Light Company and Progress Energy Florida – have been granted approval by the PSC to include in this charge certain costs related to development of new nuclear power plants. The law permitting recovery of these costs is discussed in greater detail below.

### Energy Conservation Cost Recovery Charge

The Energy Conservation Cost Recovery Charge covers the costs of the energy conservation programs approved by the PSC pursuant to the Florida Energy Efficiency and Conservation Act (FEECA).<sup>23</sup> These costs include rebates or incentives provided by the utility and the utility's administrative costs. This charge is adjusted at least annually to reflect only costs that the PSC determines were actually and prudently incurred. This charge is typically shown on a residential customer's bill as part of the "non-fuel energy charge." This cost recovery mechanism was established by the PSC under the specific authority granted in 1980 by FEECA,<sup>24</sup> and is more fully defined in the PSC's rules.<sup>25</sup>

### Environmental Cost Recovery Charge

The Environmental Cost Recovery Charge covers a utility's costs to comply with government-mandated environmental programs and standards.<sup>26</sup> This charge is typically shown on a residential customer's bill as part of the "non-fuel energy charge." This cost recovery mechanism was established in 1993 pursuant to specific statutory language in section 366.8255, F.S.

### Other Charges

A storm damage cost surcharge may also apply. Currently, any such charges cover the extraordinary costs incurred during the 2004 and 2005 tropical storm seasons. This charge is shown as a separate line item on customer bills.

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<sup>23</sup> FEECA is discussed in detail in a separate fact sheet.

<sup>24</sup> See section 366.82(11), F.S.

<sup>25</sup> Rule 25-17.015, F.S.

<sup>26</sup> Section 366.8255(1)(d), F.S. Eligible costs include all costs or expenses incurred by an electric utility in complying with environmental laws or regulations, including, but not limited to:

- Inservice capital investments, including the electric utility's last authorized rate of return on equity thereon.
- Operation and maintenance expenses.
- Fuel procurement costs.
- Purchased power costs.
- Emission allowance costs.
- Direct taxes on environmental equipment.
- Costs or expenses prudently incurred by an electric utility pursuant to an agreement entered into on or after the effective date of this act and prior to October 1, 2002, between the electric utility and the Florida Department of Environmental Protection or the United States Environmental Protection Agency for the exclusive purpose of ensuring compliance with ozone ambient air quality standards by an electrical generating facility owned by the electric utility.
- Costs or expenses prudently incurred for the quantification, reporting, and third-party verification as required for participation in greenhouse gas emission registries for greenhouse gases as defined in s. 403.44.
- Costs or expenses prudently incurred for scientific research and geological assessments of carbon capture and storage conducted in this state for the purpose of reducing an electric utility's greenhouse gas emissions when such costs or expenses are incurred in joint research projects with Florida state government agencies and Florida state universities.



Gross receipts tax is applied at a rate of 2.5% to the total amount of gross receipts received by an IOU for its sale of utility services where the utility service is delivered to the retail consumer by the IOU and the retail consumer pays the IOU a charge for utility service which includes a charge for both the electricity and the transportation of electricity to the retail consumer. This tax is recovered through rates as an expense and may be shown as a separate line item.

### ***Nuclear Power Plant and IGCC Power Plant Advanced Cost Recovery***

Since 2006, Florida law has allowed investor-owned utilities to recover costs incurred in the siting, design, licensing, and construction of nuclear power plants prior to the date that such plants are placed into commercial operation.<sup>27</sup> The law was expanded in 2007 to allow similar treatment for integrated gasification combined cycle (coal gasification) plants. The law also allows for advanced cost recovery of transmission lines associated with these types of power plant. This treatment differs from the traditional regulatory treatment of power plant and transmission line costs, which provides for cost recovery through base rates only after the facilities are placed in service. The purpose of the law is to promote utility investment in nuclear and IGCC power plants.<sup>28</sup>

The law requires the PSC to adopt rules establishing the mechanism for advanced cost recovery and to adjudicate utility petitions for cost recovery under those rules.<sup>29</sup> Costs approved by the PSC are included for recovery through the utility's Capacity Cost Recovery Charge and are reviewed and modified by the PSC on an annual basis.<sup>30</sup> The law provides that if a utility does not complete construction of the nuclear or IGCC power plant, it must be allowed to recover all prudent preconstruction and construction costs incurred following the PSC's determination of need for the plant. The utility is permitted to recover such costs through its Capacity Cost Recovery Charge over a period equal to the period during which the costs were incurred or 5 years, whichever is greater.<sup>31</sup>

Currently, two utilities – Florida Power & Light Company and Progress Energy Florida – have sought cost recovery under this law for nuclear power plant projects. No IGCC power plant projects are currently being undertaken in Florida.

### ***Service Quality***

The Public Service Commission sets standards for and monitors the quality of service provided by Florida's investor-owned electric utilities.<sup>32</sup> In addition to ensuring efficient and adequate service, the PSC takes service quality into consideration when it sets a utility's rates.<sup>33</sup> The PSC has jurisdiction to hear and resolve service complaints involving investor-owned electric utilities.

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<sup>27</sup> Section 366.93, F.S.

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> Sections 366.03, 366.04(1), 366.05(1), F.S.

<sup>33</sup> Sections 366.041, 366.06, and 366.07, F.S.

Service quality issues typically include distribution service reliability issues, like outages and voltage fluctuations, and metering and billing issues. These issues usually affect individual customers or isolated areas. These issues are distinct from system reliability issues, which concern the ability of the generation and transmission system to supply power system-wide. System reliability issues are discussed in the separate fact sheet entitled “Regulation of Electric Utilities.”

### Outages

Each investor-owned electric utility is required to submit, on an annual basis, a report to the PSC that provides data concerning the reliability of its distribution service. This data must include:

- The total number of outage events categorized by cause for the highest ten causes of outage events
- The average duration of outage events
- The average service restoration time
- Identification of the three percent of the utility’s primary circuits (feeders) with the highest number of feeder breaker interruptions
- Calculation of other industry indices for distribution service reliability<sup>34</sup>

This information is reported to the PSC in raw form and as adjusted for specified events that affect outages, including tornadoes, named tropical storms, and planned service interruptions.<sup>35</sup> This information can be used by the PSC to direct improvements and can be taken into consideration in a rate proceeding.

The PSC also addresses specific complaints concerning outages. While the PSC can order a utility to make improvements to address recurring outage issues or to make possible billing adjustments for an affected customer, it lacks jurisdiction to award damages incurred by a customer as a result of an outage. A customer seeking damages must file a civil suit and demonstrate that the outage was the result of gross negligence by the utility.

### Voltage and Current Standards

The PSC’s rules provide standards for electrical voltage and current on utility systems. These standards specify a percentage range within which voltage and current may vary from the standard.<sup>36</sup> A violation of these standards constitutes a violation of PSC rules, subjecting the utility to potential fines.

### Metering

As required by statute,<sup>37</sup> the PSC has established accuracy standards for electric meters and requires utilities to maintain and implement test plans to ensure compliance with the standards.<sup>38</sup>

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<sup>34</sup> Rule 25-6.0455, F.A.C.

<sup>35</sup> *Id.*

<sup>36</sup> Rules 25-6.046 and 25-6.047, F.A.C.

<sup>37</sup> Section 366.05(3), F.S.

<sup>38</sup> Rule 25-6.052, F.A.C.

While the specific test plans can vary by utility, the plans must provide for testing of statistically valid samples of new meters prior to installation and for random testing of existing meters.<sup>39</sup>

For meters that measure electric consumption in kilowatt hours (kWh), like the standard residential meter, the PSC's rules allow for a plus or minus 2% average margin of error. For meters that measure a customer's demand on the electric system in kilowatts (kW), like many commercial and industrial customer meters, the accuracy requirement varies based on the specific type of meter involved. For electronic demand meters, the error may not exceed 2%. For mechanical demand meters, the error may not exceed 4%.<sup>40</sup>

Upon request of a customer, a utility must test the accuracy of the meter in use at the customer's premises if the meter has not been tested by the utility or the PSC within the previous 12 months. This test must be conducted at no charge to the customer. The customer may have a representative present at the test and is entitled to a report of the test results. Alternatively, at the customer's expense, the customer may have the meter tested by an independent meter testing facility. In the event of conflicting results, the PSC must resolve the matter.<sup>41</sup>

If a meter in service is found to exceed the allowed margin of error, resulting in a customer being overbilled, PSC rules provide a formula to determine how the customer should be compensated. If the meter error results in the customer being under-billed, the utility may backbill the customer for up to the prior 12 months, unless the error is the result of tampering.<sup>42</sup>

### Billing

Investor-owned electric utilities must render bills monthly and as soon as possible after reading the meter.<sup>43</sup> The PSC's rules require that each bill provide the following information:

- The previous period meter reading, the current meter reading, and the date the meter was read (or a clear indication that the reading is an estimate)
- Kilowatt-hours (kWh) consumed, including on and off peak if customer is time-of-day metered
- Kilowatt (kW) demand, if applicable, including on and off peak if customer is time-of-day metered
- The dollar amount of the bill, with separate lines to identify the:
  - Customer charge
  - Energy (kWh) charge, exclusive of fuel, in cents per kWh, including energy conservation costs
  - Demand (kW) charge, exclusive of fuel, in dollar cost per kW, if applicable
  - Fuel cost in cents per kWh (no fuel costs shall be included in the base charge for demand or energy)

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<sup>39</sup> Rule 25-6.056, F.A.C.

<sup>40</sup> *Id.*

<sup>41</sup> Rule 25-6.059, F.A.C.

<sup>42</sup> Rule 25-6.103, F.A.C.

<sup>43</sup> Rule 25-6.100, F.A.C.

- Total electric cost, which is the sum of the customer charge, total fuel cost, total energy cost, and total demand cost
- Franchise fees, if applicable
- Taxes, as applicable
- Identification of the applicable rate schedule
- The date by which payment must be made in order to benefit from any discount or avoid any penalty, if applicable
- The average daily kWh consumption for the current period and for the same period in the previous year, for the same customer at the same location
- The delinquent date or the date after which the bill becomes past due
- Where budget billing is used, the bill must contain the current month's consumption and charges separately from budgeted amounts
- The name of the utility plus the address and telephone number of the local office where the bill can be paid and any questions about the bill can be answered

In addition, the PSC may require a utility to include separate lines to show other charges or credits, such as the storm damage surcharge.

By rule, bills may not be considered delinquent prior to 20 days from the time of mailing or delivery.<sup>44</sup> Bills for two or more points of delivery to the same customer must be calculated separately for each such point of delivery.<sup>45</sup>

### ***Relevant Florida Statutes, Administrative Rules, and Federal Laws and Regulation***

**Florida Statutes:**

Chapter 366, F.S.

**Florida Administrative Code:**

Chapter 25-6, F.A.C.

Chapter 25-17, F.A.C.

### ***Additional information***

For additional information concerning the matters addressed in this fact sheet, please contact or refer to the following:

***Florida Public Service Commission***

Division of Economic Regulation - Marshall Willis, Director - 413-6900

Division of Service, Safety and Consumer Assistance - Dan Hoppe, Director - 413-6480

<http://www.psc.state.fl.us/>

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<sup>44</sup> Rule 25-6.101, F.A.C.

<sup>45</sup> Rule 25-6.102, F.A.C.

***Florida House of Representatives***  
Energy & Utilities Subcommittee  
(850) 487-1342



# House State Affairs Committee

## Overview of Energy Regulation

Tim Devlin  
Executive Director  
Florida Public Service Commission

February 10, 2011



# Florida Public Service Commission

PSC is charged by the Legislature to ensure that Florida's electricity consumers receive safe, adequate, and reliable service at the lowest cost possible.





# Jurisdiction

- The PSC regulates rates, quality of service, and safety for five Florida Electric Investor-Owned Utilities (IOUs).
- The PSC also has limited regulatory authority over 35 municipal and 16 rural cooperative utilities.
  - Rate structure, territorial boundaries, bulk power supply operations and planning, and safety.
- Regulated utilities serve an exclusive service territory and can charge rates that recover all prudently incurred costs, including the opportunity to earn a fair rate of return on their investment.
- For these benefits, they have an obligation to serve all customers.
- This prevents the uneconomical and inefficient duplication of facilities that would raise costs for all customers.



# Traditional Utility Planning and Rates

Ten-Year Site Plans

Need Determination Process

In-Service Date

Rate Proceeding



# Ten-Year Site Plans

- Section 186.801(1), F.S., requires each generating electric utility to submit a Ten-Year Site Plan.
- Provides the results of a utility's integrated resource plan.
  - Forecast of customer peak demand and energy requirements.
  - Assessment of options to maintain reliability.
    - Conservation and energy efficiency.
    - Purchases from renewables, third parties, and other utilities.
    - Modernization of existing generation.
    - Construction of new generation and transmission.
- Identifies locations of future electric infrastructure.
- TYSPs are for information only and subject to modification due to changes in:
  - Fuel costs.
  - Energy use projections.
  - Evolving technology.
  - Shifting energy policy.



# Energy Conservation Goal Setting Process

- The Florida Energy Efficiency and Conservation Act (FEECA), requires the PSC to set goals at least every five years that will:
  - Conserve expensive resources, like petroleum fuels.
  - Reduce and control the growth rates of electricity consumption.
  - Reduce the growth rate of weather-sensitive peak demand.
  - Encourage the development of demand-side renewable energy systems.
- Once goals are set, utilities must develop and implement cost-effective plans and programs to meet the goals.
- Demand and energy savings from utility programs are reflected in the Ten-Year Site Plans and reduce the need for future power plants.



# Energy Conservation Goal Setting Process

- 2008 legislation placed increased emphasis on demand-side management and energy efficiency and renewables.
- In December 2009, the PSC approved new aggressive conservation goals for reducing the growth of seasonal peak demand and annual energy consumption.
- Utility plans and programs implementing the new goals are currently under review.
- The utility conservation plans include measures that are cost-effective from a system-wide basis (Total Resource Cost Test) and take into consideration the potential for costs associated with reducing green-house gas emissions.
- Utilities were also directed to offer incentives for customer based thermal and photovoltaic solar installations.



# Power Plant Certification Process

- The PSC is the exclusive forum for determining the need for power.
- The Department of Environmental Protection is responsible for evaluating environmental impact.
- Other state and local agencies provide input on land use, water use, and compliance with comprehensive plans.
- The PSC's report on need and testimony from the DEP and other state and local agencies are considered in a public hearing before a state hearing officer.
- The Governor and Cabinet make the final decision for certification .



# Need Determination Process

PSC must consider (Section 403.519, F.S.):

- Reliability and integrity of the grid.
- Adequate electricity at a reasonable cost.
- Are cost-effective conservation or renewables available to defer or avoid the need.
- Is the plant the most cost-effective alternative.
- Impacts on fuel diversity.



# Cost Recovery

- Base Rates - Rates that cover the cost of generating (excluding fuel), delivering, and metering electricity to retail customers.
  - Fixed costs of capital investments
  - Return on investment
  - Operation & Maintenance Costs
  - Other Administrative costs
  
- Cost Recovery Clauses: Annually adjusted rates to cover fuel and certain other costs.





# Rate Cases

- Base rates normally set in a rate case.
- Process takes 8 months and includes filing requirements, testimony, discovery, auditing, and hearings.
- Base rate costs or revenue requirements are identified; base rates are set to generate revenue to cover revenue requirements.
- IOU expenses are subject to prudence review before cost recovery is allowed.



# Cost Recovery Clauses

- Clauses include:
  - Fuel and Purchased Power
  - Capacity
  - Conservation
  - Environmental
  - Nuclear pre-construction
- Rates are established annually, after hearing, although there can be mid-course corrections.
- Fuel most significant of these clauses.



# Nuclear Cost Recovery

- 2006 Legislature required the PSC to develop rules allowing IOUs to recover costs for nuclear power plants before commercial operation.
- These changes reduced utility risk and created new assurances to encourage utilities to pursue construction of nuclear facilities.
- Because pre-construction costs are recovered prior to the in-service date of the nuclear facilities, current customers pay for the promise of future generation savings.
- Over the life of the nuclear facilities, overall costs will be lower because of the early recovery of pre-construction costs.



# Nuclear Cost Recovery

- The PSC determined the need for FPL's Turkey Point and PEF's Levy nuclear projects, thus qualifying them to request recovery of nuclear pre-construction costs.
- Annual hearings held to determine appropriate amounts for cost recovery allowed by the statute:
  - Site Selection
  - Pre-construction Costs
  - Carrying charges for Construction Costs (Interest)
- Includes annual review of continued prudence of construction.



# Florida Investor-Owned Utilities

Residential Electric Service – Typical Monthly Bill – 1000 kWh – January-December 2011

	<b>Florida Power &amp; Light Co.</b>	<b>Progress Energy Florida, Inc.</b>	<b>Tampa Electric Company</b>	<b>Gulf Power Company</b>	<b>Florida Public Utilities Co. Marianna</b>	<b>Fernandina Beach</b>
Base Rate Charges	\$43.01	\$48.58	\$55.45	\$49.30	\$31.58	\$31.58
Fuel and Purchased Power Cost Recovery Clause	\$38.57	\$44.61	\$38.75	\$51.31	\$115.53	\$96.30
Energy Conservation Cost Recovery Clause	\$1.88	\$2.99	\$2.74	\$0.80	\$1.15	\$1.15
Environmental Cost Recovery Clause	\$1.79	\$4.91	\$4.04	\$13.43	N/A	N/A
Capacity Cost Recovery Clause (includes nuclear)	\$6.21	\$15.27	\$3.36	\$4.76	N/A	N/A
Storm Damage Cost Surcharge	\$1.17	N/A	N/A	N/A	N/A	N/A
Gross Receipts Tax	\$2.38	\$2.98	\$2.68	\$3.07	\$3.80	\$3.31
<b>Total Monthly Bill</b>	<b>\$95.01</b>	<b>\$119.34</b>	<b>\$107.02</b>	<b>\$122.67</b>	<b>\$152.06</b>	<b>\$132.34</b>



# Questions?



**Current & Projected  
Electric Energy Sources**



# House State Affairs Committee

## Florida Electric Utility Current & Projected Energy Sources February 10, 2011

Bob Trapp

Division of Regulatory Analysis  
Florida Public Service Commission





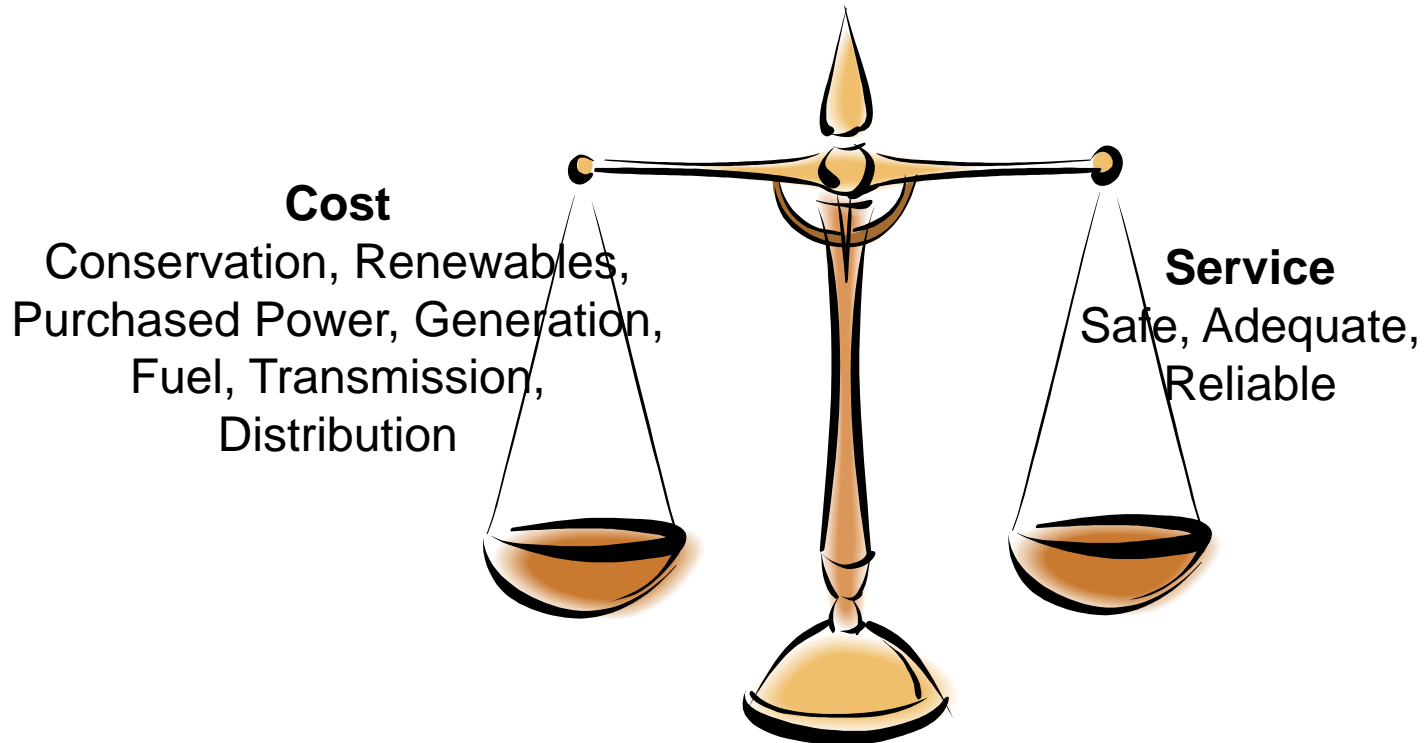
## Florida Public Service Commission

Chapter 366, Florida Statutes:

- Assure the development of adequate and reliable energy grids.
- Prescribe fair and reasonable rates and charges for purposes of ensuring the reliable provision of service.

# Electric Utility Regulation

Achieve a balance between the cost of providing service and the reliability of the service provided.



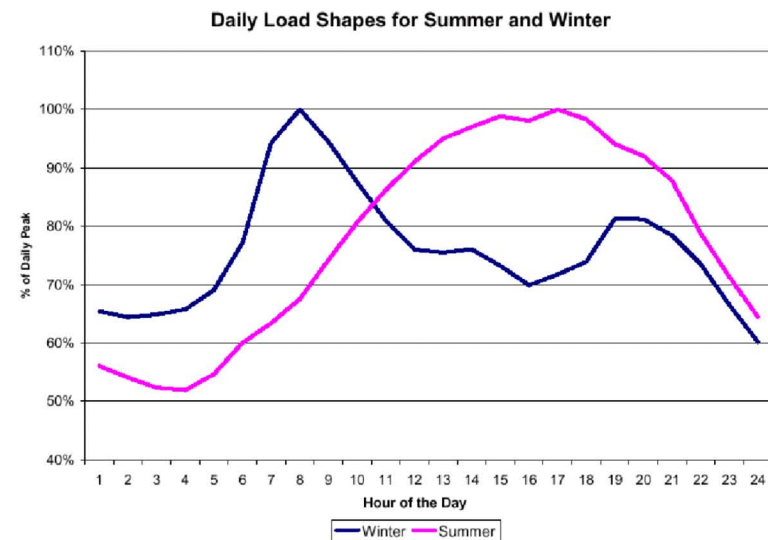


## How to Achieve the Balance?

- By statute, utilities are obligated to serve all customers.
- A utility considers all feasible resources to meet customer requirements:
  - Conservation
  - Energy purchases from renewable & alternative generators
  - Energy purchases from other utilities
  - Refurbish or upgrade existing generation
  - New utility-owned generation.
- Customer load and energy requirements change during the day and during the year.
- A utility selects a mix of resources that minimize total costs and meet reliability criteria.

# Electric Utility Planning – Starts with a Forecast

- Customer make-up: residential, commercial, industrial
- Number of customers
- Use per Customer
  - Housing size
  - Appliance saturation
  - Climate – cooling & heating degree days
  - Economy





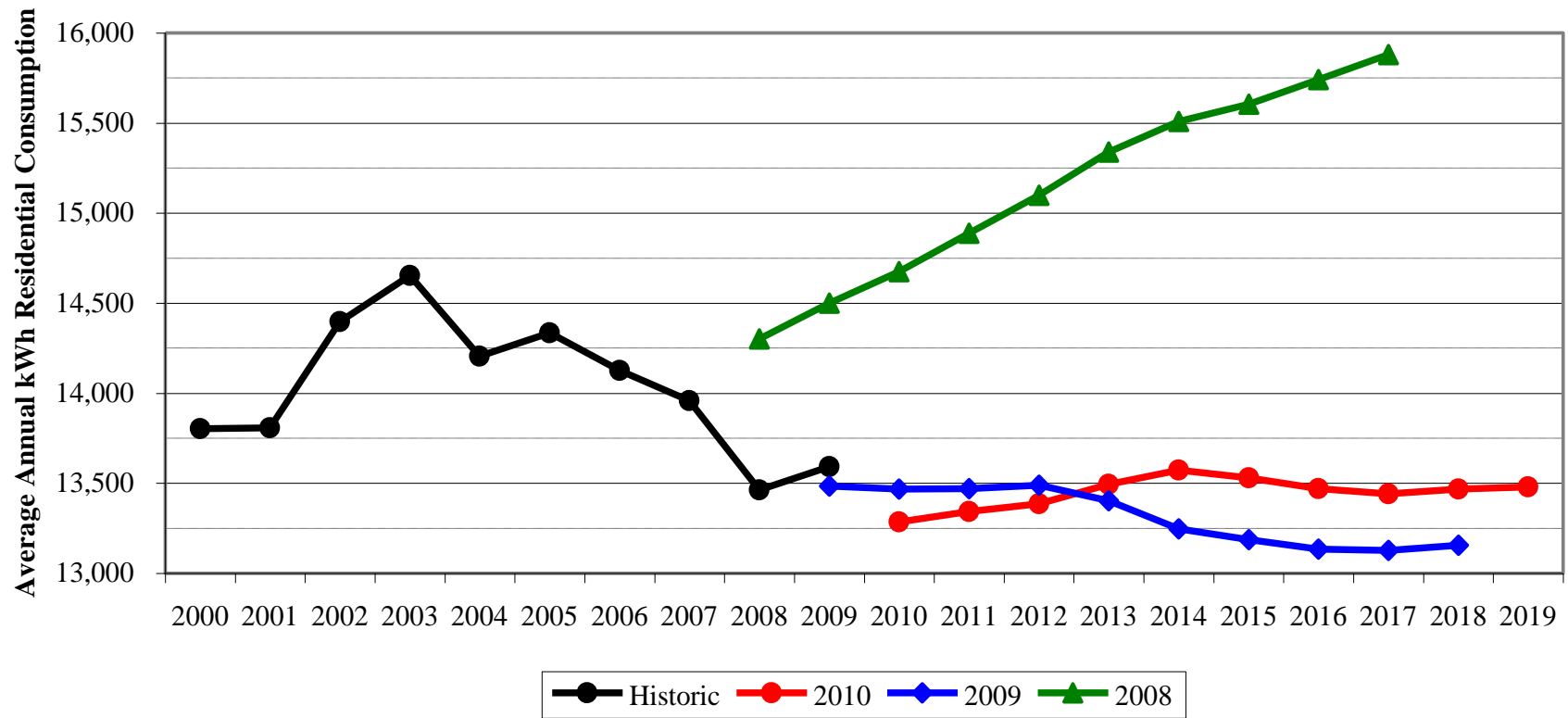
## Customer Make-Up

2010 State of Florida	Number of Customers	Percent of Customers	Percent of Sales
Residential	8,311,768	88.7%	50.70%
Commercial	1,031,798	11.0%	36.80%
Industrial	27,347	0.3%	9.70%
Other			2.80%

2008 TYSP: 2.69% growth in total sales 2008-2017

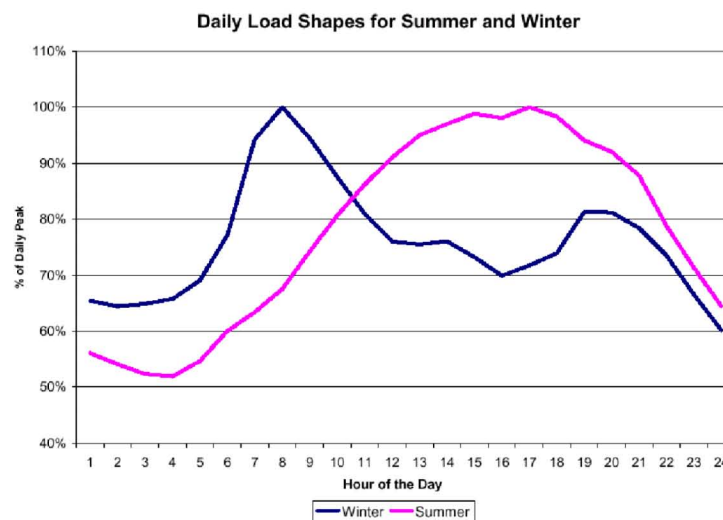
2010 TYSP: 1.65% growth in total sales 2010-2019

## State of Florida: Forecast Energy Consumption per Residential Customer (kWh/yr)



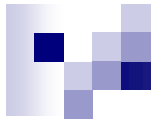
# Seasonal Peak Demand

	Summer Peak Demand (Firm – MW)	Winter Peak Demand (Firm – MW)
2010	45,743	48,887
2019	51,226	56,363



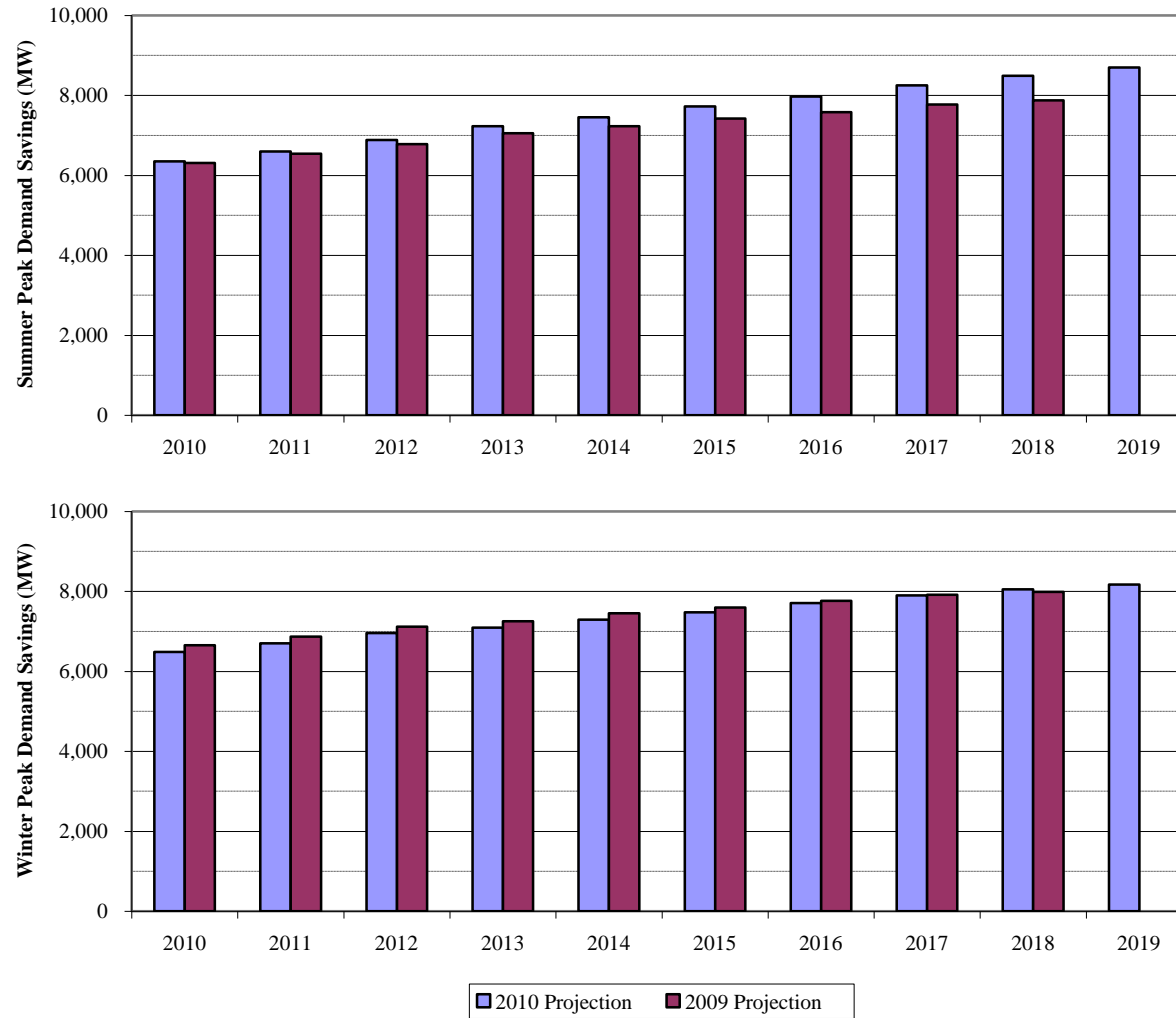
2008 TYSP: 2.14% summer, 2.09% winter growth in peak demand 2008-2017

2010 TYSP: 1.27% summer, 1.58% winter growth in peak demand 2010-2019



# Conservation

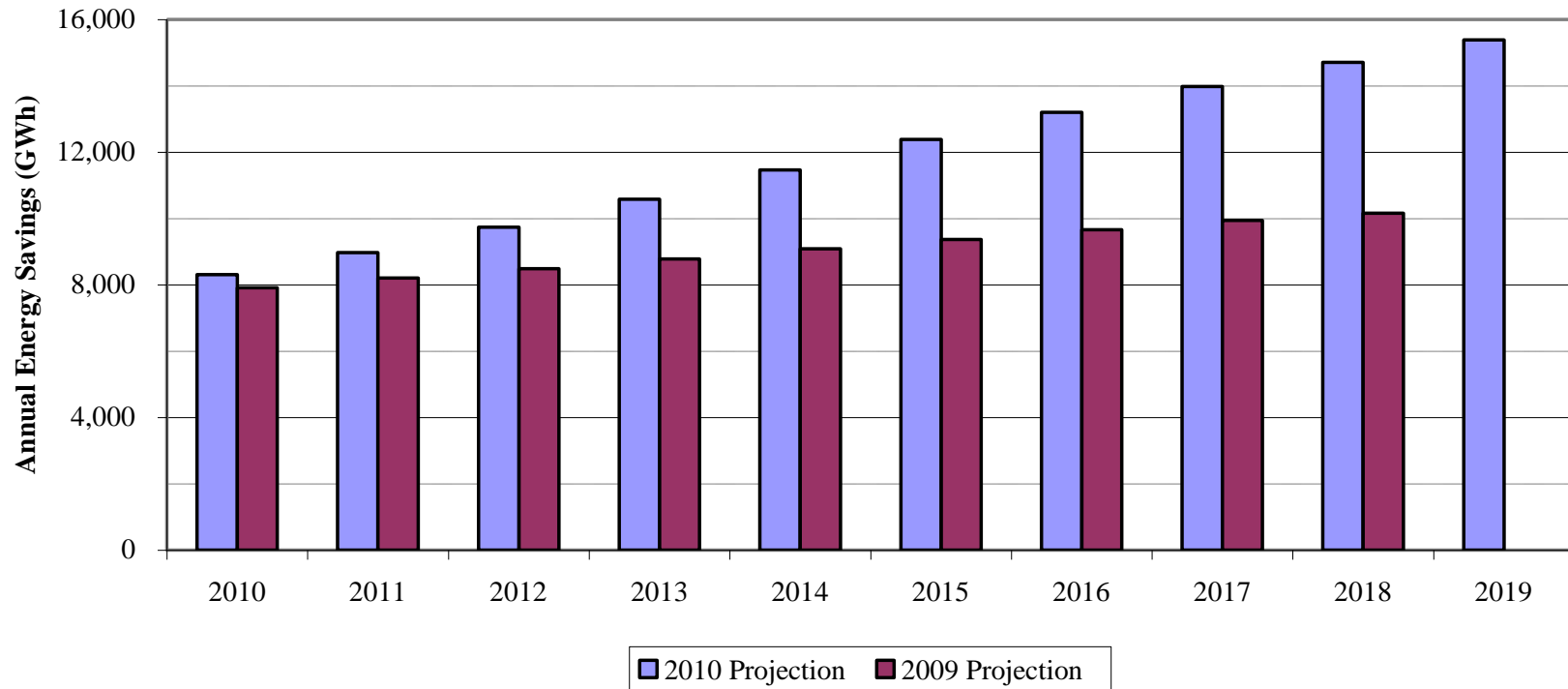
## Seasonal Peak Demand Reductions







# Conservation Energy Consumption Reductions



New Conservation Goals will be reflected in the 2011 TYSP

# Renewables

## Existing

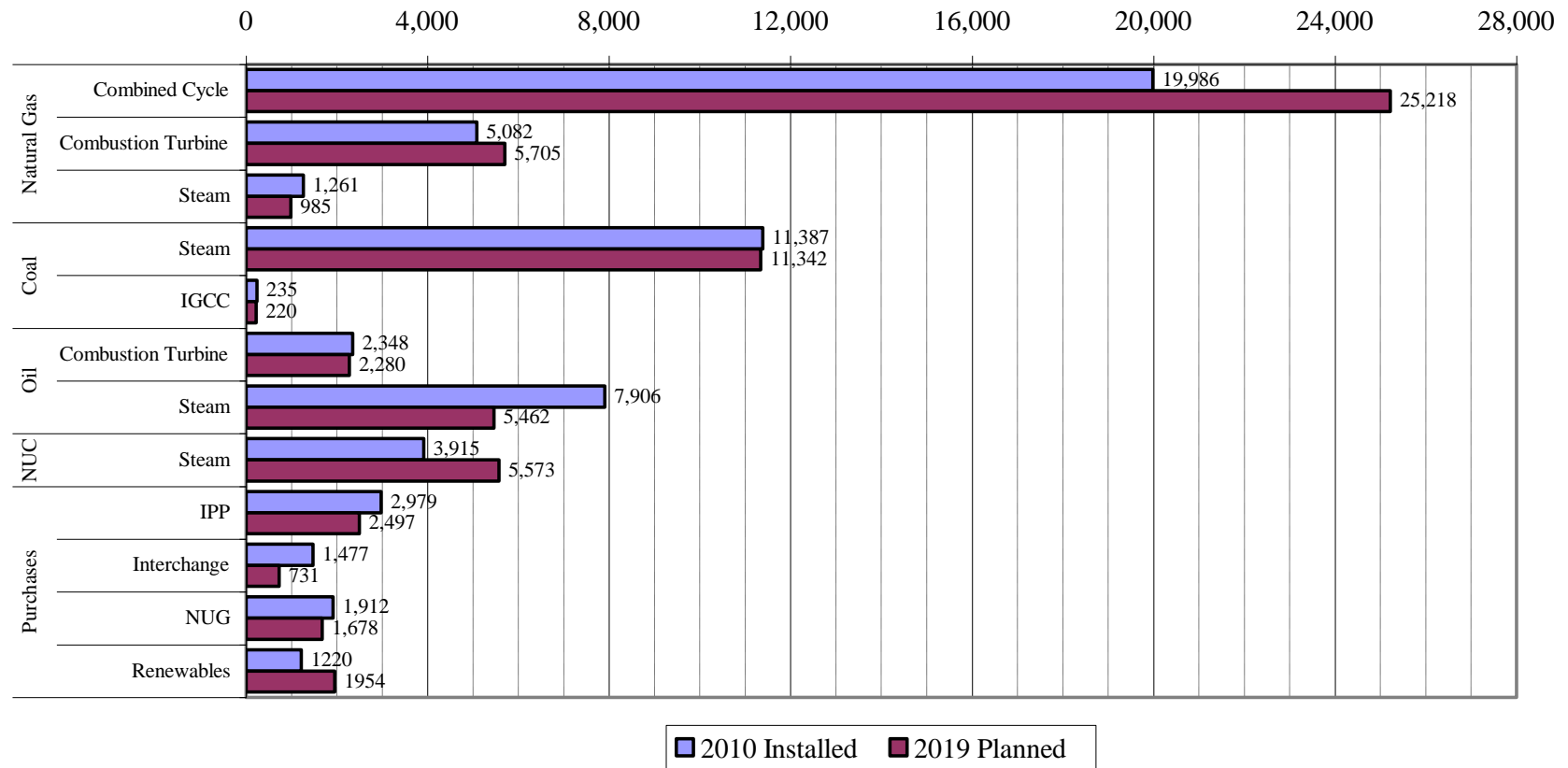
## Planned

Fuel Type	Capacity (MW)	Fuel Type	Capacity (MW)
Solar	34.5	Solar	296.2
Wind	0.0	Wind	13.8
Biomass	408.0	Biomass	372.0
Municipal Solid Waste	398.1	Municipal Solid Waste	20.0
Waste Heat	288.9	Waste Heat	0.0
Landfill Gas	35.9	Landfill Gas	32.3
Hydro	54.5	Hydro	0.0
<b>Total</b>	<b>1,219.9</b>	<b>Total</b>	<b>734.3</b>

Includes: firm sales, non-firm sales, utility-owned, self-service, & net metering.

# State of Florida Existing & Projected Capacity Mix (Summer – MW)

**Installed Capacity (MW)**



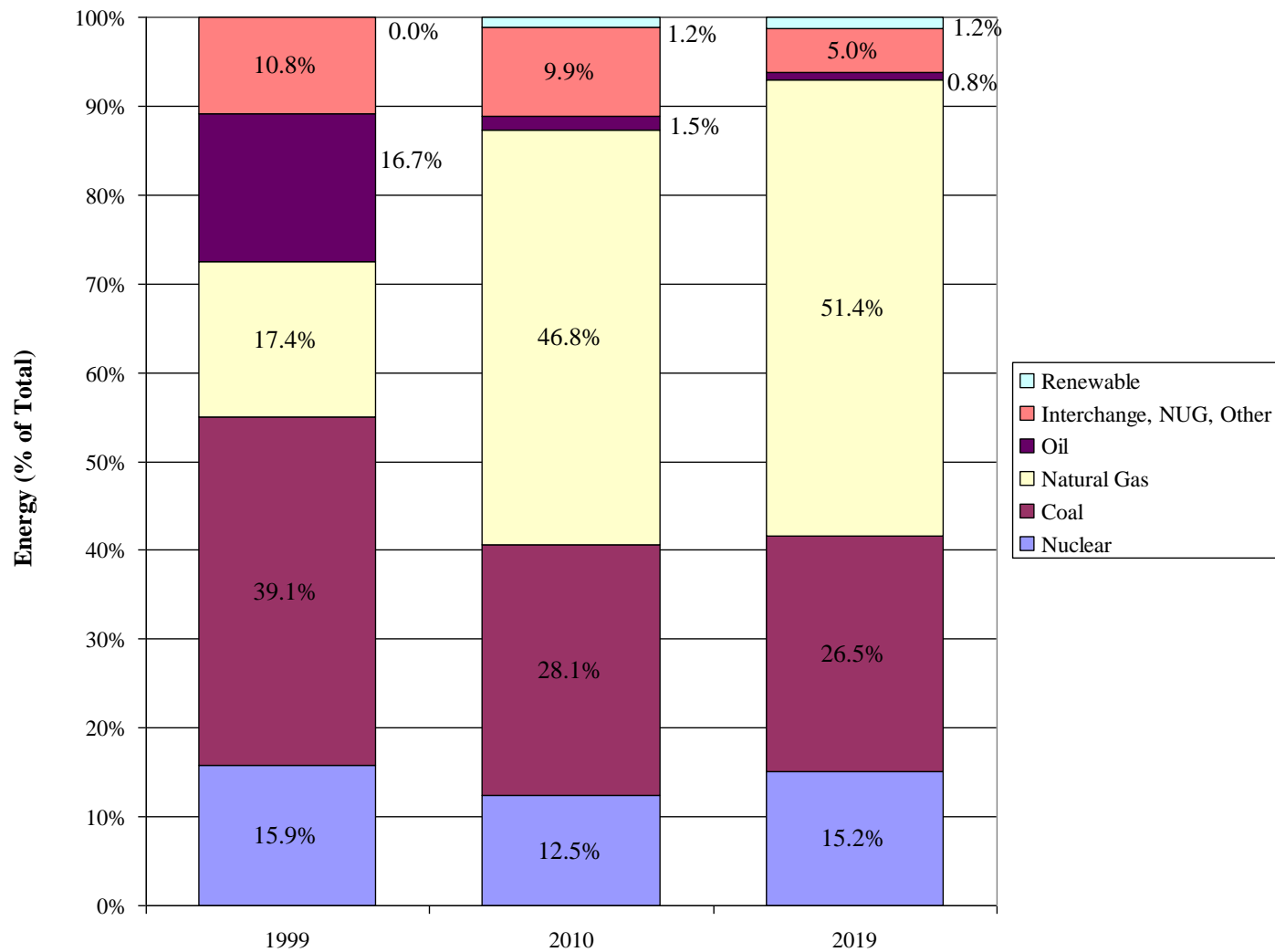
## Net Capacity Changes

Unit Type	Net Summer Capacity Changes (MW)	
	2009 Ten-Year Site Plan (2009-2018)	2010 Ten-Year Site Plan (2010-2019)
<b>Natural Gas (NG)</b>		
Combined Cycle	8,861	5,232
Combustion Turbine	2,130	623
Steam	-277	-276
<b>Coal</b>		
Steam	489	-45
Integrated Coal Gasification	0	-15
<b>Oil</b>		
Combustion Turbine & Diesel	-141	-68
Steam	-2,497	-2,444
<b>Nuclear (NUC)</b>		
Steam	3,838	1,658*
<b>Firm Purchases</b>		
Independent Power Producer (IPP)	-1,993	-482
Interchange	-954	-746
Non-Utility Generator (NUG)	384	-234
Renewables	385	734
<b>Net Capacity Additions</b>	<b>10,225</b>	<b>3,937</b>
* Includes Levy 1 which has been delayed beyond 2019 after the Ten-Year Site Plan filing		

From 2009 TYSP to 2010 TYSP:

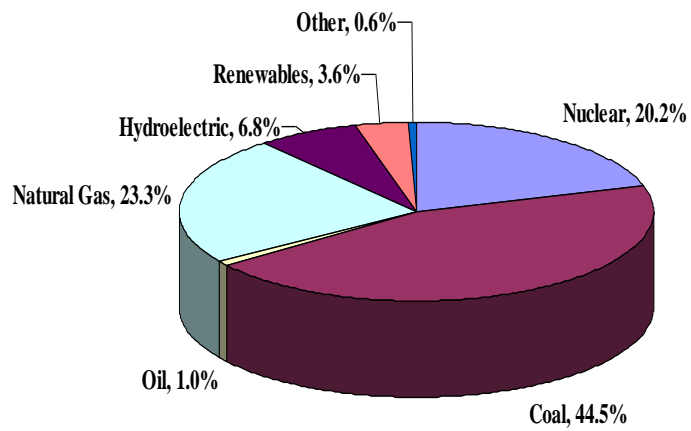
**6,288 MW** net utility generating capacity has been avoided or deferred from the ten year planning horizon!

# State of Florida Generation Fuel Mix

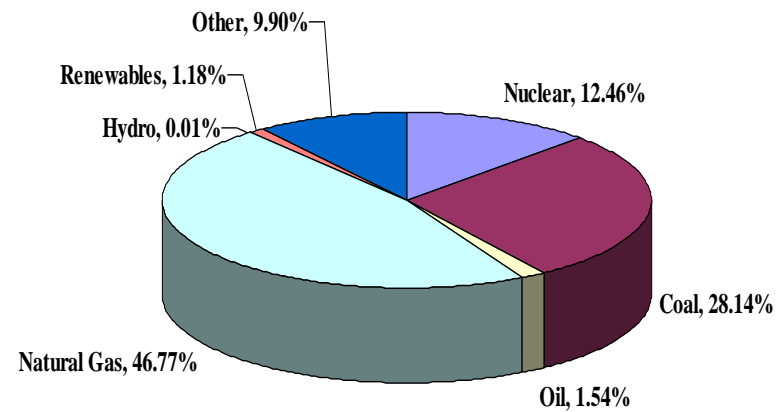


# Generation Fuel Mix US vs. Florida

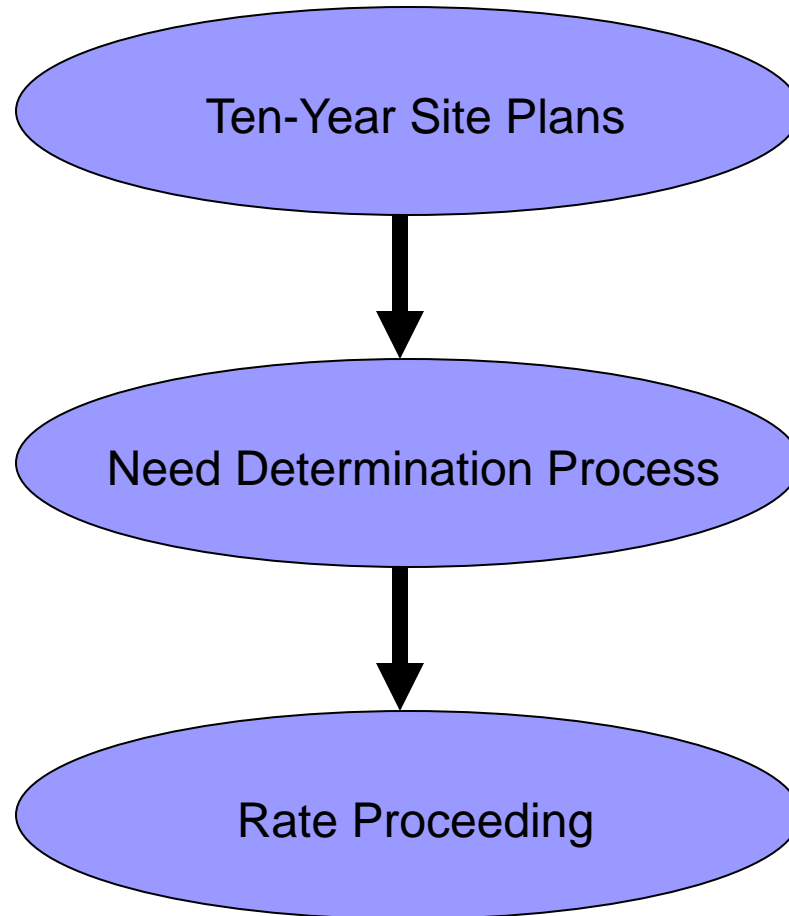
United States (2009)



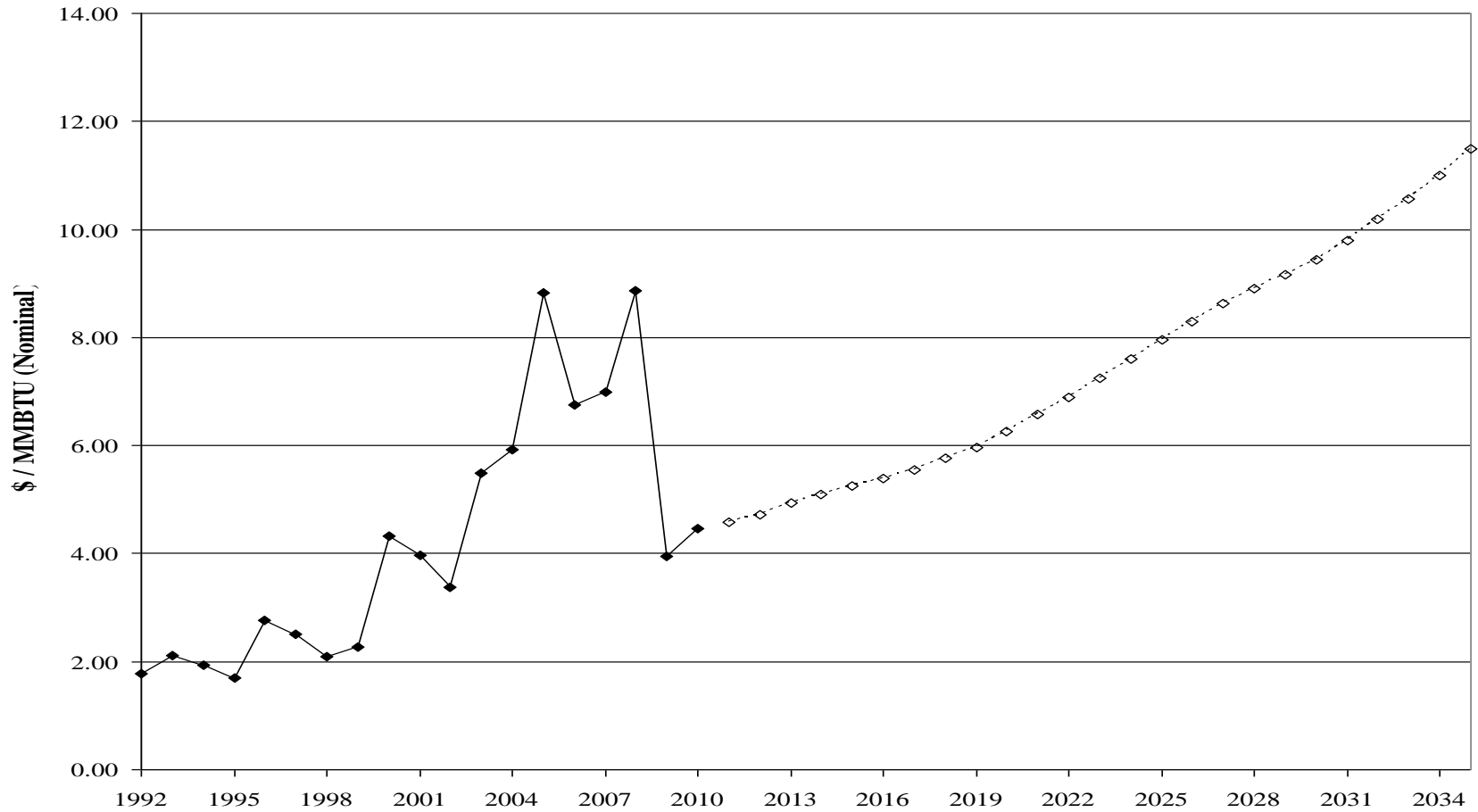
Florida (2010)



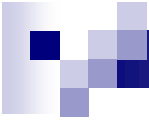
# Electric Utility Planning and Rates



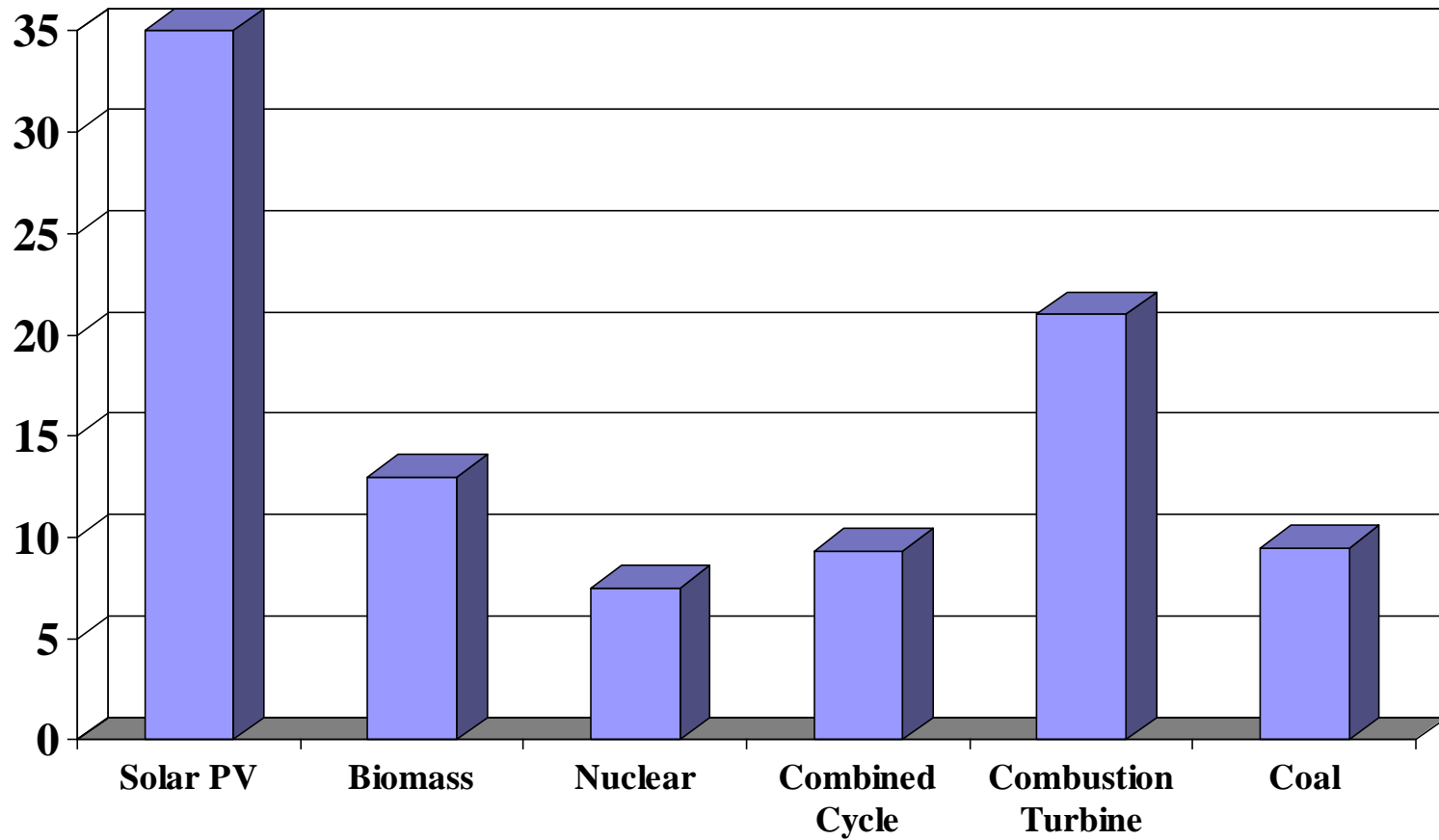
# Natural Gas Prices



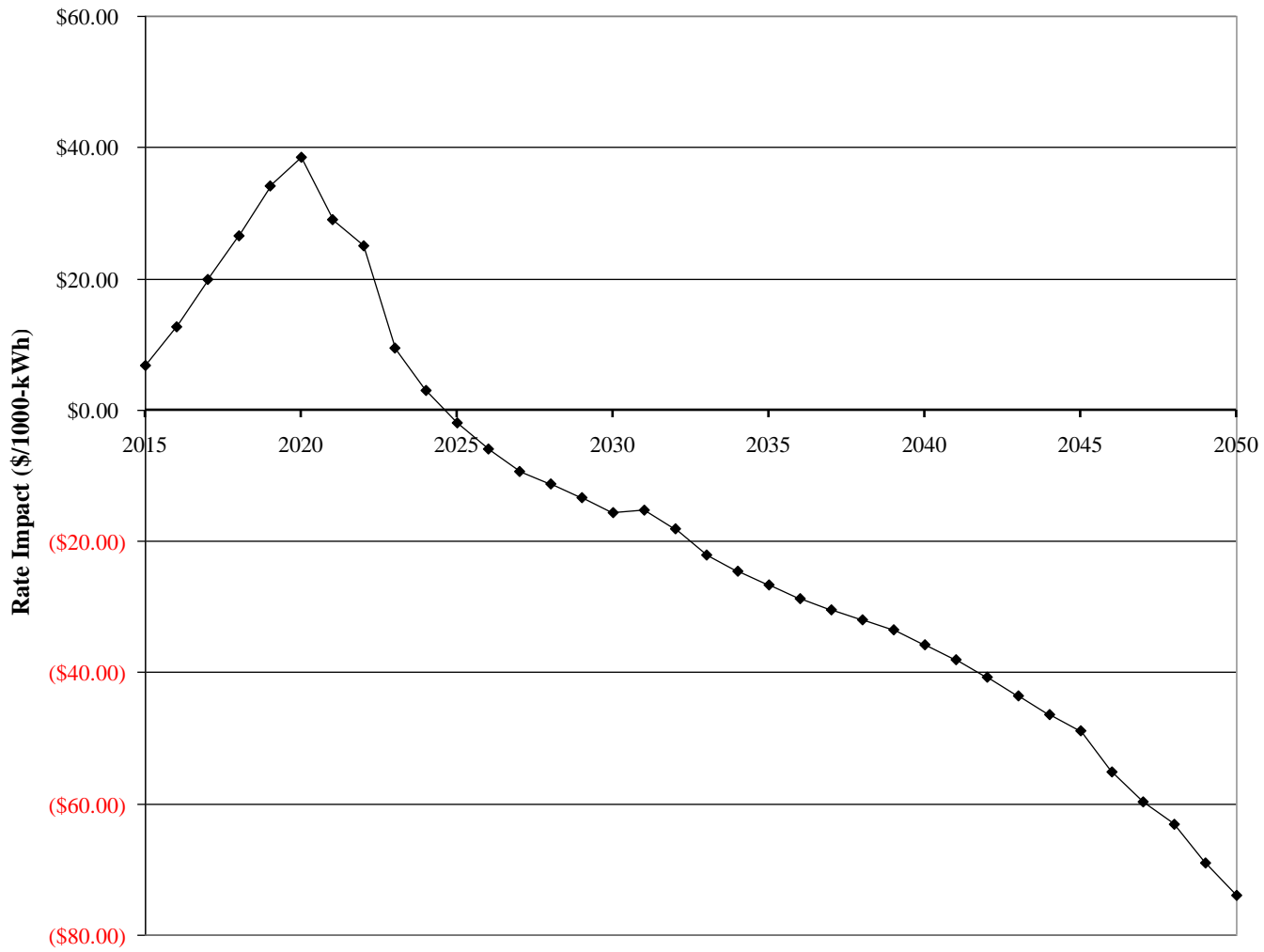




## Generation Cost - Cents/kWh



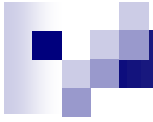
# Nuclear Rate Impacts





## Legislative Directives

- ☑ Emphasis on fuel diversity due to increasing reliance on natural gas-fired generation and the volatility of natural gas fuel prices.
- ☑ Increase conservation.
- ☑ Increase development of renewable resources for electric generation.
- ☑ Encourage the development of nuclear generation.



**QUESTIONS?**





*Florida Department of  
Environmental Protection*

# *Numeric Nutrient Criteria Overview*

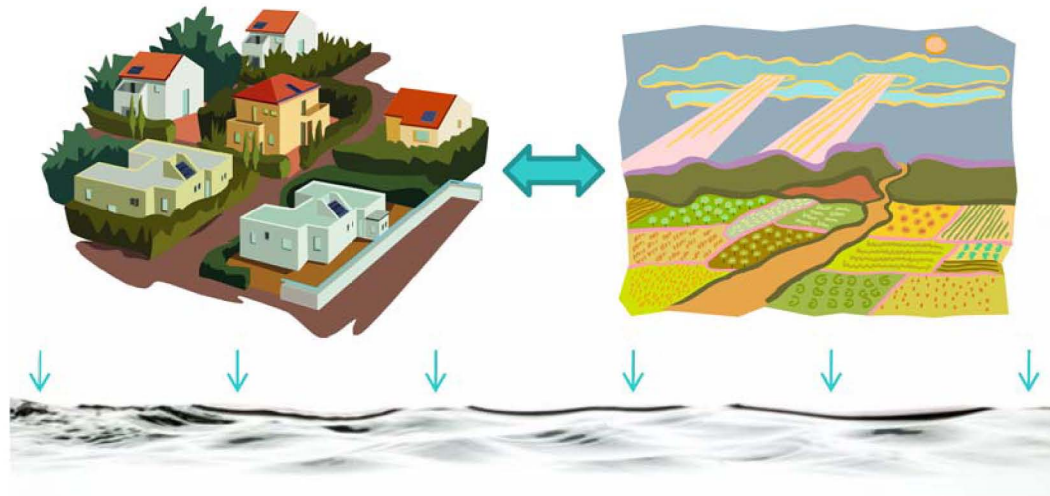
Florida Department of Environmental Protection  
Division of Environmental Assessment & Restoration  
Drew Bartlett, Assistant Director

*Prepared for: House State Affairs Committee  
February 10, 2011  
Chair: Representative Seth McKeel*



## *Nutrients: Nitrogen & Phosphorus*

- ❖ What are sources of excess nutrients?
  - Human Activity



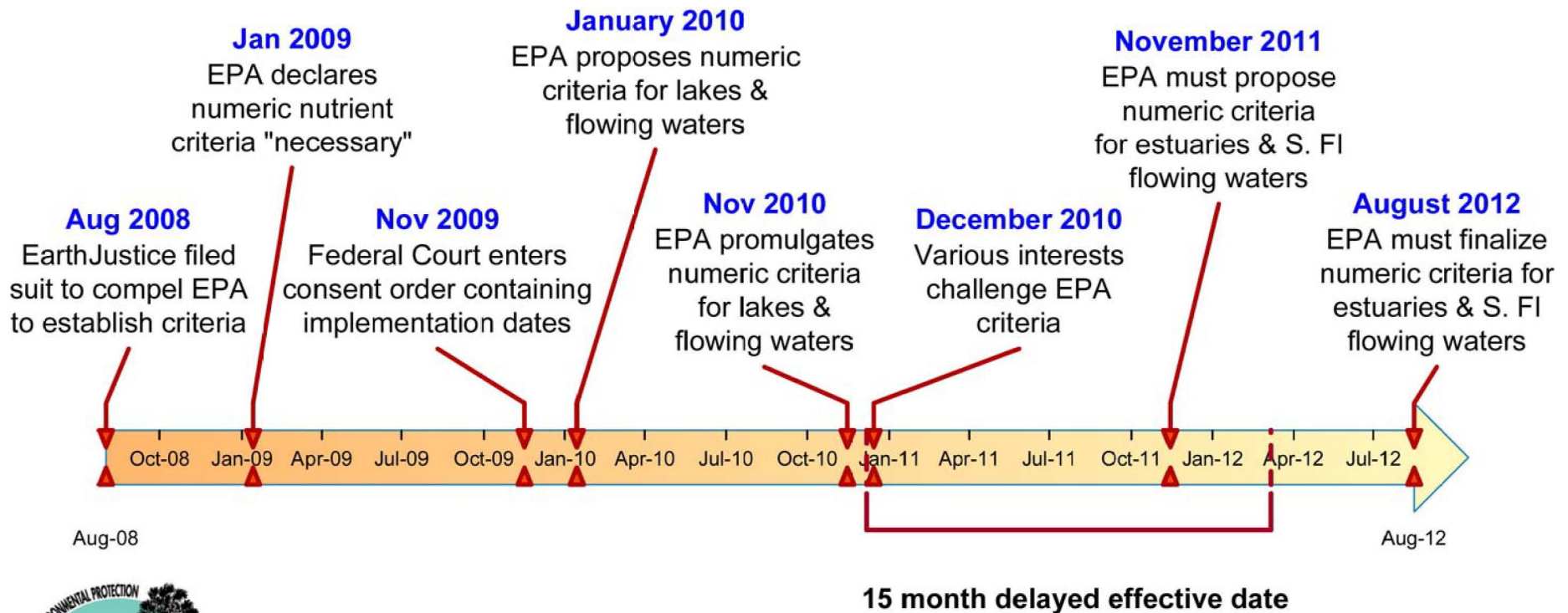
- ❖ What are the results of excess nutrients?
  - Environmental and Health Risks: Harmful Algae Blooms
  - Economic Impacts: Tourism and Land Value





# Timeline of Events

- 1998: EPA issues National Strategy to Adopt Numeric Nutrient Water Standards
- 2002: FDEP starts Criteria Development







# *Questions?*

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For more information, please contact:

**Drew Bartlett**

**[drew.bartlett@dep.state.fl.us](mailto:drew.bartlett@dep.state.fl.us)**

**(850) 245-8446**





## Questions & Answers on Numeric Nutrient Criteria

Last Updated: February 8, 2011

**Q: What are nutrients, & how do they differ from other pollutants?**

**A:** Nutrients, such as nitrogen and phosphorus, are substances that are needed by organisms (e.g., humans, animals, plants) to live and grow. In aquatic systems, these nutrients feed the growth of bacteria, algae, and other organisms. Nitrogen and phosphorus are essential to the production of plant and animal tissue. It is used primarily by plants and animals to synthesize protein. Phosphorus is essential to cellular growth and respiration.

Nutrients are fundamentally different from most pollutants because they are essential to aquatic life and are not inherently harmful or toxic at natural concentrations. In fact, aquatic organisms cannot build the proteins and nucleic acids of their cellular structure or carry out their basic metabolic processes without the proper concentrations of nitrogen and phosphorus. In contrast, some toxicants, such as pesticides or metals, can be toxic to aquatic life even in barely detectable concentrations.

**Q: What are some of the sources of nitrogen and phosphorus to aquatic systems?**

**A:** Natural sources of nitrogen and phosphorus are the atmosphere, soils, and the decay of plants and animals. Unnatural sources include sewage disposal systems (treatment works or septic tanks), overflows of storm and sanitary sewers (untreated sewage), agricultural production & irrigation practices, and runoff from urban areas, neighborhoods, pastures, and ranges.

**Q: What problems can excess nutrients in Florida's lakes and streams cause?**

**A:** Algal blooms, nuisance aquatic weeds, and alteration of the natural community of plants and animals can all occur as a result of excess nutrients. Algal blooms are the result of increased growth of floating microscopic plants. In some cases, high concentrations of certain algae can produce substances that are highly toxic to fish, birds, and mammals. Dense, harmful blooms of algae can also cause human health problems, fish kills, problems for water treatment plants, and generally impair the aesthetics of waters. Populations of nuisance aquatic weeds can increase in nutrient-enriched waters, which can impact recreational activities like swimming and boating. Increased algal production as a result of increased nutrients can alter the plant community, which in turn can inhibit natural food chain dynamics.

**Q: What are numeric nutrient criteria?**

**A:** Water quality standards are established in state regulations as the goals for the protection of aquatic ecosystems, safe recreation and fishing, and provision of water supplies. Such standards contain water quality criteria that are established at values that, if achieved, protect these goals. Numeric nutrient criteria are measurable levels of the amount of nitrogen and/or phosphorus allowed in a waterbody that maintains the goals. The measurable levels of aquatic health related to the effects of excess nitrogen and/or phosphorus, such as the amount of algae or the water clarity would also constitute numeric nutrient criteria.

**Q: Why are numeric nutrient criteria important?**

**A:** Excess nitrogen and phosphorus pollution (nutrient pollution) in water bodies can cause harm to the aquatic ecosystems, threaten public health, disrupt recreational activities, and pose threats to public health. The Florida Department of Environmental Protection (FDEP) recently found that 16% of Florida's assessed river and stream miles, 36% of assessed lake acres, and 25% of assessed estuary square miles are impaired by nutrients (2008 Integrated Water Quality Report). A numeric expression of criteria is easy to measure and evaluate leading to quicker response to potential pollution problems.

**Q: Why aren't numeric nutrient criteria adopted now?**

**A:** The derivation of specific numeric nutrient criteria to complement the narrative is very complex. Since nutrients are essential to life, a balance must be understood to provide adequate nutrients to sustain aquatic life while not providing excessive nutrients which alter the aquatic ecosystem through species shifts. Each waterbody can have very different and unique nutrient requirements. In order to best develop the thresholds at which a healthy aquatic environment can be sustained, it is best to develop a reliable measure of the biological condition of the waterbody. After years of research, the FDEP recently developed such measures for lakes and streams. Once the biological measurements are developed, studies were launched in 2008 regarding the effects of varying nutrient conditions on the biological measurements. The results of those studies have lead to EPA's establishment of numeric nutrient criteria.

**Q: How has the FDEP implemented to narrative criteria to date, and how will numeric criteria help?**

**A:** The FDEP mainly implements the narrative nutrient criterion in two ways. For point sources (e.g., wastewater facilities discharging to surface waters), the FDEP interprets the narrative criterion on a site-specific basis and establishes permit limits for nutrients. To better address nutrient impairment from nonpoint (non-regulated) sources, the FDEP recently revised the Impaired Waters Rule to include numeric nutrient impairment thresholds. These thresholds helped to expedite the assessment of Florida's waters, but they were set for variables that measure the response to nutrient over enrichment (like levels of algae in the water), rather than the concentration of nutrients. Development of numeric nutrient criteria will help to expedite both the development of permit limits and the identification of waters impaired by nutrients.

**Q: Why is the EPA involved?**

**A:** In July 2008, a coalition of environmental advocacy groups represented by EarthJustice filed suit against the EPA in federal court (Northern District of Florida, Judge Hinkle presiding) claiming that the EPA was obligated to set numeric nutrient criteria in the State of Florida under the Clean Water Act. On January 14, 2009, the EPA issued an official Clean Water Act determination that committed the agency to the establishment of numeric nutrient criteria. On August 19<sup>th</sup>, the EPA signed a settlement agreement with EarthJustice setting a firm schedule to federally adopt numeric nutrient criteria for the State of Florida. The settlement called for the EPA to set numeric nutrient criteria for inland, fresh waters on November 14, 2010 and for marine waters and South Florida canals on August 14, 2012.

**Q: How are the criteria used?**

**A:** These numeric values are applied to the condition of the waterbody and, if attained, will protect the waterbody from the harmful effects of nitrogen and phosphorus pollution. If the values are not attained, then the waterbody is identified as not attaining the criteria. If harmful effects are observed, the process of setting reduction expectations and allocating responsibility begins. If harmful effects are not observed, monitoring the condition of the waterbody would continue until it is known that an alternative criteria value is appropriate.

If an entity is seeking permission to discharge to waterbodies with numeric nutrient criteria under the Clean Water Act, they are expected to provide assurances that their nutrient discharge will not harm the waterbody. If the discharge results in criteria attainment, protection can be presumed. If not, entities have an opportunity to petition for an alternative and protective value for the receiving waterbody.

Once set, these criteria values are implemented through other Clean Water Act programs, specifically permitting and restoration programs. They are not directly enforceable and fines will not be levied against any individuals if they are not attained in the waterbody.

**Q: What is the Florida Department of Environmental Protection's role in implementing these criteria?**

A: Under the Federal Clean Water Act, these water quality standards set by EPA are implemented in Clean Water Act authorized programs, such as discharge permitting. All regulated discharge permits issued by FDEP pursuant to Clean Water Act authorities are expected to demonstrate that they will not result in nonattainment of established water quality criteria. These permits include discharges from municipal treatment works and industrial process water discharges. The issuance of each permit is based on site specific considerations including the evaluation the applicable criteria proximal to the discharge.

These criteria are also expected to be implemented in other Clean Water Act programs like assessing waterbody attainment for identifying impaired waterbodies and calculating necessary pollution reduction requirements (Total Maximum Daily Loads). To facilitate implementation of the criteria by the State in these programs, the Florida Department of Environmental Protection would have to adopt regulations that incorporate numeric nutrient criteria into the decision process.

In order for the Department to adopt regulations that incorporate these criteria, the full rulemaking process with final Environmental Regulation Commission adoption would need to occur. In the absence of Department implementation of the criteria, responsibility for implementation under the Clean Water Act would fall to the Environmental Protection Agency.

**Q: How do interested parties get involved in the process for deriving and adopting numeric criteria?**

A: The FDEP maintains a web page where individuals can track progress, access materials, and learn about public meetings.

[<http://www.dep.state.fl.us/water/wqssp/nutrients>] In addition, citizens can review the Florida Administrative Weekly to see notices of public meetings and notices of proposed rules.



## *Final Water Quality Standards for the State of Florida's Lakes and Flowing Waters*

### **Summary**

EPA has finalized strong standards to help reduce water pollution that causes harmful algae blooms -- the thick, green muck that fouls clear water -- which produce toxins harmful to humans, animals and ecosystems across the state of Florida. The blooms are caused by nitrogen and phosphorus, called "nutrients," in wastewater, urban stormwater runoff and excess fertilizer which flow into waterways. The final standards set specific or "numeric" limits, called "criteria," on the amount of nutrient pollution allowed in Florida's lakes, rivers, streams and springs. This action seeks to improve water quality and protect public health, aquatic life and the long term recreational uses of Florida's waters which are a critical part of the State's economy. These standards will become effective 15 months from now, allowing cities, towns, businesses and other stakeholders as well as the State of Florida a full opportunity to review the standards and develop flexible strategies for implementation while Florida continues to recover from the recent economic crisis.

### **Background**

Nitrogen and phosphorus pollution also known as "nutrient pollution" causes harmful algae blooms which produce toxins harmful to both humans and animals and deplete oxygen needed for fish and shellfish survival, smother vegetation and discolor water. It can also result in the formation of byproducts in drinking water from disinfection chemicals, some of which have been linked with serious human illnesses. Nutrient pollution originates from stormwater runoff, municipal wastewater treatment, fertilization of crops and livestock manure. Nitrogen also forms from the burning of fossil fuels, like gasoline.

lawsuit against EPA, following which EPA in January 2009 made a determination under the Clean Water Act that numeric nutrient standards are needed in Florida. A consent decree settling the lawsuit, entered into in August 2009, requires EPA to adopt specific or "numeric" nutrient pollution standards by November 2010. On January 26, 2010, EPA published proposed "Water Quality Standards for the State of Florida's Lakes and Flowing Waters" (75 FR 4173). In developing the proposed criteria for Florida's lakes and flowing waters, EPA utilized extensive data provided by the Florida Department of Environmental Protection (FDEP) and utilized sound scientific approaches that were independently peer-reviewed. EPA conducted 13 well-attended public hearing sessions in six cities in Florida and held a 90-day public comment period inviting broad public participation. The Agency received over 22,000 public comments on the proposal.

On August 3, 2010, EPA published a notice supplementing the January 26, 2010 proposed rule, based upon comments received during the public comment period.

### **About this Regulation**

In this rulemaking, EPA is promulgating final numeric nutrient water quality standards for lakes and springs throughout the State of Florida and flowing waters outside of the South Florida Region. The final standards set numeric limits on the amount of nutrient pollution allowed in Florida's inland waters. These standards will become effective 15 months from now, allowing cities, towns, businesses and other stakeholders as well as the State of Florida a full opportunity to review the standards and develop strategies for implementation while Florida continues to recover from the current economic crisis.



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### *Criteria for Florida Streams*

EPA is establishing five different watershed-based regions within Florida with different total nitrogen and phosphorus (TN and TP) criteria for streams in each region. EPA evaluated extensive biological information and data on the levels of nutrients in relevant Florida streams and derived standards based on nutrient concentrations in least-disturbed streams that are unimpaired for nutrients. This approach is referred to as a reference approach.

Under the Clean Water Act, States designate and EPA approves uses for different water bodies (for example, contact recreation, or drinking water supply). Water Quality Standards (WQS) ensure that these uses are maintained. Sources that discharge into streams must not only ensure that WQS are maintained where they discharge, but also that their discharges do not cause pollution problems further downstream. This rule will protect both rivers and streams, and downstream lakes. In a later action, EPA will establish rules to protect estuaries, following a public peer review by EPA's Scientific Advisory Board (SAB). These standards for coastal waters must be promulgated by August 2012.

### *Criteria for Florida Lakes*

EPA is classifying Florida's lakes into three groups (colored, clear & alkaline, clear & acidic) and assigning different values for total nitrogen (TN), total phosphorus (TP) and chlorophyll *a* to each lake group. The standards are based on the biological response (chlorophyll *a* production) to TN and TP levels in Florida's lakes. EPA proposed the use of chlorophyll *a* concentration as an indicator of a healthy biological condition, supportive of natural balanced populations of aquatic flora and fauna in each of the classes of Florida's lakes. Excess algal growth is associated with degradation in aquatic life, and chlorophyll *a* levels are a measure of algal growth.

### *Criteria for Florida Springs*

Regarding numeric nutrient criteria for springs, EPA is establishing a nitrate-nitrite criterion based on experimental laboratory data and field evaluations that document the response of nuisance algae to nitrate-nitrite concentrations.

### *Additional Provisions*

In addition to establishing final numeric nutrient water quality standards for Florida, EPA is also announcing a flexible approach for deriving federal site-specific alternative criteria (SSAC) based upon stakeholder submission of scientifically defensible recalculations of protective levels that meet the requirements of CWA section 303(c).

This allows for case-by-case adjustments depending on local environmental factors while protecting water quality. Governments or other stakeholders can seek site-specific consideration in cases where water bodies have been extensively assessed by the State and local communities and effective measures are in place to reduce nutrient pollution. Existing or new Total Maximum Daily Load (TMDL) targets that differ from EPA's final criteria can be submitted to EPA by Florida for consideration as new or revised WQS and will be reviewed under this SSAC process.

### **For More Information**

Contact Danielle Salvaterra at (202) 564-1649 or [salvaterra.danielle@epa.gov](mailto:salvaterra.danielle@epa.gov), or visit [http://water.epa.gov/lawsregs/rulesregs/florida\\_index.cfm](http://water.epa.gov/lawsregs/rulesregs/florida_index.cfm).

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