



# FULL ANALYSIS

## I. SUBSTANTIVE ANALYSIS

### A. DOES THE BILL:

- |                                      |                              |  |   |
|--------------------------------------|------------------------------|--|---|
| 1. Reduce government?                | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/>            |
| 2. Lower taxes?                      | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | N/A <input checked="" type="checkbox"/> |
| 3. Expand individual freedom?        | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | N/A <input checked="" type="checkbox"/> |
| 4. Increase personal responsibility? | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | N/A <input checked="" type="checkbox"/> |
| 5. Empower families?                 | Yes <input type="checkbox"/> | No <input type="checkbox"/>            | N/A <input checked="" type="checkbox"/> |

For any principle that received a “no” above, please explain:

- The bill allows the Department of Environmental Protections to put in place air pollution reductions beyond that required by current Florida or federal laws.

### B. EFFECT OF PROPOSED CHANGES:

#### Issue – Air Emissions

##### Present Situation

Air is an essential natural resource that is important to our health, our environment, and our economy. Poor air quality can adversely affect business, property, recreation, and tourism which are the backbone of Florida's progress<sup>1</sup>. Florida is currently one of only two states east of the Mississippi River that is in attainment with all health-based national air quality standards<sup>2</sup>.

The Clean Air Act is a federal law containing provisions to improve and protect the outdoor air quality in the United States (U.S.). It gives the U.S. Environmental Protection Authority (EPA) the responsibility for setting national ambient air quality standards to protect public health, while giving states the job of determining how best to meet those standards<sup>3</sup>.

The Florida Department of Environmental Protection (DEP) is the lead agency responsible for implementing the Clean Air Act in Florida.<sup>4</sup> The DEP issues permits to stationary sources of air pollutants that specify emission limits and requirements for construction and operation. The permit conditions also specify the emission testing and monitoring requirements applicable to each source. These requirements are the primary means for demonstrating compliance with the emission limits. Air permits are issued by the DEP for a wide range of facilities from larger facilities such as electric power plants and pulp and paper mills to smaller facilities such as dry cleaners and portable crushers.<sup>5</sup> DEP is responsible for coordinating the statewide ambient air quality and emissions monitoring programs and various activities related to the control of air pollutant emissions from area sources.<sup>6</sup>

A number of air pollutants can cause damage to health. Listed below are three major air pollutants that have been identified as causing health effects at concentrations in the ambient air (the outside air we breathe) above thresholds established at levels known to be safe:

<sup>1</sup> <http://www.dep.state.fl.us/air/default.htm>

<sup>2</sup> DEP, Legislative Bill Analysis, Received March 10, 2004

<sup>3</sup> <http://www.dep.state.fl.us/air/programs/cleanair.htm>

<sup>4</sup> <http://www.dep.state.fl.us/air/programs/cleanair.htm>

<sup>5</sup> <http://www.dep.state.fl.us/air/programs/airpermit.htm>

<sup>6</sup> <http://www.dep.state.fl.us/air/bamms.htm>

**Nitrogen Oxides (NOx)** is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the NOx are colorless and odorless. However, one common pollutant, nitrogen dioxide (NO<sub>2</sub>) along with particles in the air can often be seen as a reddish-brown layer over many urban areas. NOx forms when fuel is burned at high temperatures, as in a combustion process. The primary sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels.<sup>7</sup>

**Sulfur Dioxide (SO<sub>2</sub>)** is produced by power plants and industries that burn fossil fuels that contain sulfur, such as coal and oil, and by the phosphate industry through its production of sulfuric acid. SO<sub>2</sub> is irritating to the lungs and can result in a higher incidence of respiratory disease.<sup>8</sup>

**Particulate Matter (PM)** is the general term used for a mixture of solid particles and liquid droplets found in the air. Some particles are large or dark enough to be seen as soot or smoke. Others are so small they can only be detected with an electron microscope.<sup>9</sup>

### Effect of Proposed Changes

The bill creates section 403.0874, F.S., which establishes air emission reduction levels pertaining to NOx, SO<sub>2</sub> and PM from certain electric generating units. This section is known by popular name the "Air Quality Improvement Act."

The bill provides the following definitions utilized in this section:

**Electric utility steam generating unit:** This is an electric utility steam generating unit that has more than 100 megawatts of potential electric output capacity and supplies more than one-third of such capacity to any utility power distribution system for sale.

**Investor-owned public utility:** This is a public utility, as defined in section 366.02, F.S., that supplies electricity to or for the public in Florida.

The following table illustrates the emission level caps allowed from the effective date of this bill for an investor-owned public utility that owns or operates:

FACILITY TYPE	EMISSION REDUCTION REQUIREMENT
<b>Coal-fired</b> electric utility steam generating unit for which the collective emissions of <b>NOx</b> from all coal-fired generating units were between 32,000 tons and 36,000 tons in calendar year 2002, as reported in the U.S. EPA clean air markets database.	Limited to no more than 17,000 tons of <b>NOx</b> emissions in calendar year 2010 or any calendar year thereafter.
<b>Coal-fired</b> electric utility steam generating unit for which the collective emissions of <b>SO<sub>2</sub></b> from all coal-fired generating units were between 96,000 tons and 100,000 tons in calendar year 2002, as reported in the U.S. EPA clean air markets database.	Limited to no more than 50,000 tons of <b>SO<sub>2</sub></b> oxide emissions in calendar year 2010 or any calendar year thereafter.
<b>Residual oil and natural gas-fired or residual oil-fired</b> electric utility steam generating unit for which the collective	Limited to no more than an annual weighted average of 0.26 pounds of <b>NOx</b> per million BTUs of fuel consumed in calendar year 2010 or any

<sup>7</sup> <http://www.epa.gov/air/urbanair/nox/what.html>

<sup>8</sup> <http://www.dep.state.fl.us/air/pollutants/sulfur.htm>

<sup>9</sup> <http://www.epa.gov/airnow/aqibroch/aqi.html>

emissions of <b>NOx</b> from all oil and gas-fired or oil-fired generating units exceeded 11,000 tons in calendar year 2002, as reported in the U.S. EPA clean air markets database.	calendar year thereafter.
<b>Residual oil and natural gas-fired or residual oil-fired</b> electric utility steam generating unit for which the collective emissions of <b>PM</b> from all oil and gas-fired or oil-fired generating units exceeded 7,000 tons in calendar year 2002, as reported in the Annual Operating Reports of the investor-owned public utility filed under Title V of the Clean Air Act.	Limited to no more than an annual weighted average of 0.030 pounds per million BTUs of fuel consumed in calendar year 2012 or any calendar year thereafter.

*Note: See the DEP chart under “Drafting Issues or Other Comments” in this analysis to review Florida facilities affected by these emission reduction requirements.*

The bill requires a investor-owned public utility subject to the new section 403.0874, F.S., to submit their compliance plan to the DEP no later than August 1 of the year this bill becomes effective. The DEP will review the compliance plan and certify that it is capable of achieving the established emission limits. The emission limits established in section 403.0874, F.S., do not alter an investor-owned public utility’s obligations under any other federal or state laws regarding air quality or visibility. DEP is required to expedite the issuance of any permit to an investor-owned public utility for electric steam generating units subject to this section and will include conditions that provide for compliance with requirements of section 403.0874, F.S., by incorporating the emissions limitations and requiring testing, monitoring, recordkeeping and reporting adequate to ensure compliance.

## **Issue – Environmental Cost Recovery (Air Emissions)**

### **Present Situation**

Section 366.8255(1)(c), F.S., currently defines “Environmental laws or regulations” to include all federal, state, or local statutes, administrative regulations, orders, ordinances, resolutions, or other requirements that apply to electric utilities and are designed to protect the environment. Voluntary agreements between electric utilities and environmental agencies are not currently covered under statute.

Currently electric utilities may petition the Florida Public Service Commission (PSC) describing the electric utility’s proposed environmental compliance activities and projected environmental compliance costs in addition to any Clean Air Act compliance activities and costs. If approved by the PSC, the PSC will allow recovery of the electric utility’s prudent incurred environmental compliance costs, including the costs incurred in compliance with the Clean Air Act. Costs approved by the PSC are recovered from ratepayers through the Environmental Cost Recovery Clause (ECRC), which is administered by the PSC.<sup>10</sup>

<sup>10</sup> PSC, Legislative Analysis, Received March 11, 2004. The Environmental Cost Recovery Clause was established by s. 366.8255, F.S.

## Effect of Proposed Changes

- The bill amends the definition of “Environmental laws or regulations” contained in section 366.8255(1)(c), F.S., to include “voluntary agreements” for air quality improvement programs entered into between electric utilities and DEP prior to December 31, 2011, that are designed to protect and improve the environment. An electric utility may submit to the PSC a petition describing the electric utility’s proposed environmental compliance costs in addition to any Clean Air Act and Air Quality Improvement Act (created in this bill – section 403.0874, F.S.) compliance activities and costs. The costs to meet the requirements of these agreements may include a proposal for nontraditional recovery of any such costs and the reasons supporting approval of the proposal for recovery through the ECRC. This allows an electric utility that has the ability to submit a proposal for something other than the traditional, after-the-fact cost recovery. An example would be a proposal to freeze electric utility rates.<sup>11</sup> The bill continues the oversight by the PSC and provides them discretion to accept or reject nontraditional cost recovery proposals.
  
- The bill creates section 366.8252, F.S., which details compliance requirements, cost recovery and regulatory conditions for public utilities. Each “public utility” subject to the air emission limitations of the Air Quality Improvement Act may petition the PSC for approval to recover the costs of a plan to achieve compliance with the Air Quality Improvement Act.<sup>12</sup> The petition must be filed with the PSC on or before September 1 of the year prior to the calendar year for the requested recovery cost. The petition components consist of the following:
  1. Number and identity of affected generating units.
  2. Description of compliance plan submitted by the public utility to the DEP for certification.
  3. Estimated effects of the compliance plan on the public utility’s requirements for construction and operation of generating facilities.
  4. Public utility proposed schedule for implementation of compliance activities.
  5. Estimated costs the public utility will incur to implement its compliance plan.
  6. Description of public utility’s future sources of fuel as a result of the compliance plan and the estimated effects of any such changes on the public utility’s fuel costs.

The bill requires the PSC to render its decision on the plan filed by the public utility within 8 months after the date of filing. If the PSC determines that the estimated costs are reasonable, it will approve the costs for recovery through the ECRC. Approval of the estimated costs to implement the plan is subject to “true-up” based on the review of actual public utility costs.

The bill required the PSC to establish the following regulatory conditions in conjunction with the approval of cost recovery for a public utility’s compliance plan:

- If requested by the public utility, the PSC will authorize the cost recovery of the public utility’s total costs to implement the compliance plan on a levelized basis period not to exceed **7 years** beginning with the year in which the cost recovery commences subject to:
  - a. The public utility has the discretion in any year to **increase or decrease** the levelized recovery amount, provided that the utility’s estimated costs to implement the compliance plan are fully recovered at the conclusion of the recovery period.

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<sup>11</sup> DEP, Legislative Bill Analysis, Received March 10, 2004.

<sup>12</sup> A “public utility” is defined in s. 366.02(1), F.S., to include every person, corporation, partnership, association, or other legal entity supplying electricity or gas to the public within this state.

- b. Any **over-recovery or under-recovery** of the public utility's actual cost shall be "trued up" in the year following the conclusion of the cost recovery period.
  - c. Any costs to implement **beyond the recovery period** will be recovered through adjustment clauses in accordance with the PSC's normal practice and procedure.
- If the recovery cost is implemented as described above, the following occurs:
    - a. **Base rates and related rate schedules** of the public utility in effect on the effective date of this bill will remain unchanged and frozen during the initial 5 years of the recovery period.
    - b. **Adjustment clause recovery factors** in effect on the effective date of this bill will remain unchanged and frozen during the recovery period.
    - c. **Depreciation rates and any annual adjustments to depreciation** expenses and reserves allowed in a rate settlement agreement approved by PSC for the public utility that is in effect on the effective date of this bill will remain in effect and capped during the recovery period.

The base rate freeze will not apply during the initial fixed term of any base rate settlement agreement. The public utility may elect to extend the base rate freeze for the full recovery period by written notice to the PSC at least 3 months prior to the expiration of the initial 5-year period.

The bill provides that any revenue sharing mechanism contained in a base rate settlement agreement approved by PSC in lieu of rate of return regulation that is in effect on the effective date of this bill will be extended for the period of the base rate freeze and will be the appropriate and exclusive mechanism to address earning levels conditioned upon the following:

- **Revenue-Sharing Threshold Determination:** The revenue-sharing threshold for the year following the initial fixed term of the base rate settlement agreement is established by using the actual calendar year 2003 gross retail base rate revenues increased annually for the intermediate years by the average annual growth rate in retail kilowatt hour sales for the 10-calendar year period ending December 31, 2003.
- **Revenue Cap Determination:** The revenue cap for the year following the initial fixed term of the base rate settlement agreement will be established by adding to the revenue-sharing threshold the difference between the revenue-sharing threshold and the cap amounts for 2003, increased annually for the intermediate years by the average growth rate in retail kilowatt hour sales for the 10-calendar-year period ending December 31, 2003.

The period 1994-2003 revealed high average annual growth in kilowatt-hour sales which ranged from 3.6 – 3.9 percent annually. Current 10-year projections of kilowatt-hour sales are for an annual average growth of approximately 2.3 percent.<sup>13</sup> Incremental revenues attributable to a business combination or acquisition involving the public utility or to a change in rates is excluded in determining retail base revenues for purposes of revenue sharing.

The bill sets the return-on-equity for a public utility at 12 percent for purposes other than reporting or assessing earnings.

The PSC shall continue to review and approve the public utility's costs of programs subject to the adjustment clauses as it would in the absence of the adjustment clause freeze. During the adjustment clause freeze, the public utility may allocate costs among the clauses to minimize any over-recovery or under-recovery. If the over-recovery or under-recovery is projected to

<sup>13</sup> PSC, Legislative Analysis, Received March 11, 2004.

exceed 10 percent in a year, the PSC will make an adjustment through a separate credit or charge on customer bills.

During the cost recovery period established under the bill, the public utility is allowed to:

- Recover through the Capacity Cost Recovery Clause its annual revenue associated with generating units subject to the Florida Electrical Power Plant Siting Act that are placed in service by the public utility during such period.<sup>14</sup>

The following new generating units are scheduled into service:

<b>Generating Unit<sup>15</sup></b>	<b>Megawatts (MW)</b>	<b>In-Service Date</b>
Florida Power & Light		
▪ Martin 8	783 MW	June 2005
▪ Manatee 3	1,144 MW	June 2005
▪ Turkey Point 5	1,144 MW	June 2007
▪ Two unsited natural gas-fired combined cycle units	1,209 MW (each)	2008 2010
Progress Energy Florida, Inc.		
▪ Hines 3	582 MW	December 2005
▪ Hines 4	540 MW	2007
▪ Hines 5	540 MW	2009

The bill allows the public utility during the cost recovery period to suspend up to 100 percent of the annual accruals to its dismantlement and decommissioning reserves and authorizes the acceleration of the amortization of regulatory assets approved by the PSC.

The bill allows the PSC to take the following actions consistent with the public interest:

- Allow adjustments to the rates during the freeze period if:
  1. Governmental action results in significant cost reductions or requires major expenditures. This would include a utility to alter its structure, to divest itself of assets, to establish a regional transmission organization, or to install pollution control equipment solely for compliance purposes pursuant to a settlement agreement entered into with or approved by a government agency.
  2. Major expenditures required to restore or replace property damage as a result of storm damage.
  3. The public utility's retail base earnings falling below 10 percent return on equity.
  4. Changes in accounting requirements that substantially affect the utility's recognition of revenues and expenses.
- If a public utility submits a request, the PSC may approve a reduction in base rates or approve any new rate schedules or tariff provisions provided the request does not increase base rates.
- In the event circumstances arise which demonstrate that there will be a substantial harm to the public interest, the PSC may take action within its jurisdiction to prevent or mitigate harm.

<sup>14</sup> The Capacity Cost Recovery Mechanism was established by PSC Order 25773, issued 2/24/92, in Docket No. 91794-EQ and later modified by the issuance of subsequent PSC orders dealing with various capacity and fuel purchase issues.

<sup>15</sup> PSC, Legislative Analysis, Received March 11, 2004

C. SECTION DIRECTORY:

- Section 1. Amends s. 366.8255, F.S., expanding environmental cost recovery methods to include voluntary agreements for air quality improvement programs.
- Section 2. Creates s. 366.8252, F.S., entitled "Air Quality Improvement Act" and provides for compliance; definitions; plans; conditions, related to recovery costs by public utilities.
- Section 3. Creates s. 403.0874, F.S., relating to air emission standards for nitrogen oxide, sulfur dioxide, and particulate matter from certain electric generating units.
- Section 4. Provides the act will take effect upon becoming law.

**II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT**

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues: None.
2. Expenditures: None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

The addition of section 366.8252, F.S., would provide for a five to seven-year rate freeze to allow for implementation of pollution controls to achieve the air emission reductions. To the extent that rates would otherwise have decreased during this timeframe, local governments who are rate payers may not see a decrease in their electric utility rate. On the other hand, section 366.8252, F.S. requires the Public Service Commission to evaluate the over-recovery and under-recovery to the electric utility and provides for rate refunds or rate increases if certain thresholds are met. This prevents a "windfall" to any of the electric utilities. Any rate increases are anticipated to be relatively minor when spread across the entire electric utility's customer base.

The changes proposed by this bill will have no substantive additional effects on local governments.

2. Expenditures: None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The changes proposed by this bill will have no substantive effects on competition, private enterprise or employment markets.

There will be little effect on competition because the retail electrical power market in Florida is regulated and the companies are required to maintain a reserve margin of 20 percent. Expenditures under the voluntary agreement portion of the statute will still be weighed for their prudence by the Public Service Commission prior to approval. There are safety valves in the rate-freezing legislation that allow the Public Service Commission to adjust rates [refunds or increases] if costs/revenues exceed a certain percentage. Ultimately, the Public Service Commission will maintain its current jurisdiction by implementing the necessary actions to prevent or mitigate any harm to the public's interest.



D. FISCAL COMMENTS: None.

### III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to affect municipal or county government.

2. Other: None.

B. RULE-MAKING AUTHORITY: None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

Inconsistent terminology appears to reference the "type utility" referred to in the bill:

Section 1.- refers to "electric utility."

Section 2.- refers to "public utility."

Section 3.- refers to "investor-owned public utility."

DEP Comments:

This bill provides the largest state-mandated emission reductions in Florida's history. Without this bill, state regulators have no mechanism to require such reductions from these electric utilities. Additionally, this bill provides the opportunity for further air pollution emission reductions through voluntary agreements and cost recovery. The citizens, local governments and businesses of this state will benefit in numerous ways. These reductions will significantly enhance Florida's ability to remain in "attainment" with federal clean air standards, thus avoiding any adverse economic impacts to consumers, small business and cities. Reductions in air pollution (ozone, sulfur dioxide, fine particles, and mercury) will lead to reductions in associated health impacts (chronic respiratory ailments, asthma, cardiovascular disease, and premature mortality).

Environmental interest groups or citizens may argue that the emission reductions are not sufficient. Some may argue that allowing electric utilities to recover costs for voluntary installation of air pollution control equipment reduces the incentive for repowering to natural gas or building new units. Conversely, there have been several significant repowerings within the last several years including TECO Gannon (now Bayside), FPL Sanford, FPL Ft. Myers, and Gainesville Regional Utilities Kelly Unit 8 that have resulted in significant air emission decreases. Furthermore, the state is well-served to have a diversity of fuel sources among its electric utilities.

Others may argue that the "rate-freezing" harms consumers who may otherwise see rate reductions in this timeframe. However, the bill provides the PSC with the ability to adjust rates for refunds or, potentially, increases based upon revenues and expenditures. Ultimately, the PSC will maintain its current jurisdiction by implementing the necessary actions to prevent or mitigate any harm to the public's interest.

## LEGISLATION'S PREDICTED EMISSION REDUCTIONS

Legislation citation	Facility(ies) / Units Affected *	Pollutant limited by legislation	2002 emission of pollutant	Legislation's limit on pollutant	Anticipated total TPY reduced	TPY emitted after legislation	Percent reduction due to legislation
403.0874(3)	Crystal River	NOx	35,059 tons	17,000 tons	18,059	17,000	52%
403.0874(4)	Crystal River	SO2	97,709 tons	50,000 tons	47,709	50,000	49%
403.0874(5)	Anclote & Bartow	NOx	12,658 tons; 0.34 lb/mmBTU	0.26 lb/mmBTU annual weighted average between the 2 facilities	2,870	9,788	23%
403.0874(5)	FPL*: Turkey point Everglades Riviera Cape Canaveral Sanford 3 Martin 1&2 Manatee 1 & 2	NOx	47,474 tons; 0.35 lb/mmBTU	0.26 lb/mmBTU annual weighted average of the fleet	12,101	35,373	25%
403.0874(6)	FPL*: Turkey point Everglades Riviera Cape Canaveral Sanford 3 Martin 1&2 Manatee 1 & 2	PM	7741 tons; 0.058 lb/mmBTU	0.03 lb/mmBTU annual weighted average of the fleet	3734	4007	48%

\* The reductions in NOx and PM for the listed FPL facilities are to be averaged among the specifically listed facilities. Therefore, no reductions might occur at any one or more of the specifically listed facilities if greater reductions occur at another of the specifically listed facilities.

### IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

None.