



March 14, 2007

Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, 32399-0850

Dear Commissioner,

Audubon of Florida is a 107-year-old environmental organization, which works to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats, for the benefit of humanity and the earth's biodiversity. Accordingly, Audubon is writing to urge the Public Service Commission (PSC) to evaluate and modify its current policy of encouraging regulated Florida utilities to achieve a Balanced Fuel Supply (BFS), in particular with respect to coal-fired power plants. We further urge the PSC to join efforts to recommend legislative changes to the BFS policy. This policy is succinctly stated in the PSC "Review 2005 Ten-Year Site Plans, page 5," which states:

"The Commission is concerned that in light of current volatility in the availability and price of natural gas, Florida's utilities need to return to the practice of planning a Balanced Fuel Supply (BFS). Because of the long lead time required to construct solid fuel generation, the planned addition of coal-fired generating units in the 2012 and 2013 time frame is a reasonable step toward attaining this goal."

The BFS policy, along with the PSC Environmental Cost Recovery Clause, encourages coal-fired power plants. There are ten<sup>1</sup> coal-fired power plants currently proposed in Florida, which, if built, will be enormous contributors of greenhouse gases and mercury to the atmosphere over their lifetimes. Ratepayers, investors and the environment will be saddled with this harmful technology at the same time that national and international efforts are underway to regulate carbon dioxide emissions by establishing mandatory CO<sub>2</sub> reductions programs.

Audubon suggests policy changes, some of which may require the PSC to seek different direction from the Florida Legislature. Our proposed changes are based on the following conclusions:

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<sup>1</sup> Review of 2006 Ten-Year Site Plans, Florida Public Service Commission, Tallahassee, Florida, December 2006, page 12.

- I. The promotion of coal-fired power plants is contrary to the PSC’s stated mission to “facilitate the efficient provision of safe and reliable utility services at fair prices.”
- II. From the perspective of climate change, coal-fired power plants represent backward and harmful technology because of all fossil fuel energy sources coal plants emit the highest levels of the greenhouse gas, carbon dioxide (CO<sub>2</sub>).
- III. The BFS policy undermines local, national and international efforts to curb greenhouse gas emissions and establish mandatory CO<sub>2</sub> reductions programs.
- IV. The BFS policy coupled with the PSC Environmental Cost Recovery Clause place undue financial risks on Florida ratepayers.
- V. The BFS policy increases energy inefficiency and causes negative environmental impacts associated with proposed plant locations.

### ***I. The Promotion of Coal-Fired Power Plants is Contrary to the PSC’s Stated Mission***

The PSC mission states: “Customers are served best by markets that facilitate the efficient provision of safe and reliable utility services at fair prices. The mission of the Florida Public Service Commission is to promote the development of competitive markets—as directed by state and federal law—by removing regulatory barriers to competition, and by emphasizing incentive-based approaches, where feasible, to regulate areas that remain subject to rate of return regulation. Once markets become sufficiently competitive, the Florida Public Service Commission will eliminate regulatory involvement to the extent permitted by law.”<sup>2</sup>

The BFS policy encourages shareholder-owned utilities to site and build coal plants (or “solid fuel generation”), but this directly contradicts the PSC mission to “facilitate the efficient provision of safe and reliable utility services at fair prices.” Coal-fired power plants are not environmentally safe and are increasingly a significant financial risk, given national and international trends toward and costs of establishing mandatory CO<sub>2</sub> emissions reductions to address global climate change and curb its impacts.

While major strides in technology have allowed reduced sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions, and particulate matter, burning coal as a fuel still allows excessive emission of mercury and CO<sub>2</sub>, which each having serious environmental implications. “Coal-fired power plants are responsible for 60 percent of U.S. SO<sub>2</sub> emissions, 33 percent of U.S. mercury emissions, 25 percent of U.S. NO<sub>x</sub> emissions, and more than 33 percent of the nation’s CO<sub>2</sub> emissions.”<sup>3</sup>

### ***II. Coal-fired Power Plants Contribute to Dangerous Global Climate Change***

In its Fourth Assessment Report, released in February 2007, the Intergovernmental Panel on Climate Change found “warming of the climate system is unequivocal, as is now

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<sup>2</sup> <http://www.floridapsc.com/about/mission.aspx>

<sup>3</sup> Coal-fired Generation: Proven and Developing Technologies, Office of Market Management and Strategic Analysis, Florida Public Service Commission, December 2004, page 9.

evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global mean sea level.”<sup>4</sup>

Global climate change is the most clear and present danger to the environment and to future life on earth, and threatens human health and prosperity. The leading cause is the anthropogenic emission of greenhouse gases into the atmosphere. “Carbon dioxide is the most important anthropogenic greenhouse gas. The global atmospheric concentration of carbon dioxide has increased from pre-industrial value of about 280 parts per million (ppm) to 379 ppm in 2005. The atmospheric concentration of carbon dioxide in 2005 exceeds by far the natural range over the last 650,000 years (180 to 300 ppm) as determined from ice cores.”<sup>5</sup>

The two major sources of greenhouse gas emissions are transportation and electricity generation. Of all electricity generation options, “coal plants already emit more CO<sub>2</sub> than all our cars, SUVs, trucks, buses, boats, trains, and airplanes combined, and the U.S. Department of Energy projects that CO<sub>2</sub> emissions from coal, if left unchecked, will increase to an additional 52 percent by 2030 (compared to 2003 levels).”<sup>6</sup>

Of all the sources of fossil fuels—oil, coal and gas—coal emits the highest level of carbon dioxide into the atmosphere. “Coal contains nearly 90 percent more carbon per unit of energy than natural gas. However, a new conventional (supercritical) coal power plant produces 150 percent more CO<sub>2</sub> than a new natural gas combined cycle power plant, which is much more efficient.”<sup>7</sup>

The State of Florida is one of the most vulnerable to the impacts of global climate change, particularly sea level rise, increased precipitation and droughts, stronger storm intensity, and coral bleaching.<sup>8</sup> Florida is also a main contributor to greenhouse gas pollution, ranking the 5th largest state nationwide for carbon dioxide emissions.<sup>9</sup> Tackling the primary cause of global climate change, that of carbon dioxide emissions, must become a leading economic and ecological priority in Florida.

### ***III. The BFS Policy Undermines Local, National and International Efforts to Curb Greenhouse Gas Emissions***

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<sup>4</sup> “Climate Change 2007: The Physical Science Basis”, IPCC WGI Fourth Assessment Report Summary for Policy Makers, Page 4.

<sup>5</sup> “Climate Change 2007: The Physical Science Basis”, IPCC WGI Fourth Assessment Report Summary for Policy Makers, Page 2.

<sup>6</sup> The Union of Concerned Scientists, “Cleaning up Coal’s Act,” Catalyst magazine, Spring 2006.

<sup>7</sup> Based on data from the U.S. Energy Information Agency, “Assumptions to Annual Energy Outlook 2006, Table 38, March 2006, 73. At [www.eia.doe.gov/oiaf/aeo/assumption/pdf/0554\(2006\).pdf](http://www.eia.doe.gov/oiaf/aeo/assumption/pdf/0554(2006).pdf).

<sup>8</sup> The IPCC Fourth Assessment Report found that “At continental, regional and ocean basin scales, numerous long-term changes in climate have been observed. These include changes in Arctic temperature and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones. Footnote 10, Tropical cyclones include hurricanes and typhoons.”

<sup>9</sup> U.S. Public Interest Research Group and based upon the U.S. Environmental Protection Agency National Air Quality and Emission Trends Report data (2003).

The United States is a signatory and ratified the United Nations Framework Convention on Climate Change (UNFCCC), which was adopted in 1992 and ratified in 1994 by 188 countries. Nations worldwide are taking immediate steps to reduce carbon dioxide emissions, and the Florida municipalities, states in the union, and the United States are beginning to act accordingly.

“Evidence of the dangers associated with warming greater than two degrees Celsius above pre-industrial levels has been compelling enough to persuade the European Union to adopt the goal of limiting planetary warming to this level. Studies show that to have a reasonable chance of achieving this goal, heat-trapping emissions for both developed and developing countries must be reduced at least 15 to 50 percent below 1990 levels by 2050. The European Parliament has adopted a resolution pushing for developed nations to reduce emissions 30 percent by 2020 and 60 to 80 percent by 2050. The United Kingdom adopted a similar target in 2003: 20 percent reductions by 2010 and 60 percent by 2050.”<sup>10</sup>

Twenty-eight Florida municipalities have joined almost 300 cities in the US Mayors Climate Protection Agreement, and adopted policies to address (and not undermine) progress on reducing overall CO<sub>2</sub> emissions. These policies include mandating and undertaking carbon dioxide inventories and establishing CO<sub>2</sub> emissions reductions programs in accordance with the Kyoto Protocol standard of seven percent emissions reductions below 1990 levels by 2012.<sup>11</sup>

California has adopted a goal to reduce CO<sub>2</sub> emissions by 80 percent below 1990 levels by 2050. New Mexico has a goal to reduce CO<sub>2</sub> emissions by 75 percent below 2000 levels, and the New England Conference of Governors (eight U.S. states) and Eastern Canadian Premiers adopted a goal of reducing global warming emissions 75 to 85 percent below 2001 levels.<sup>12</sup>

Momentum is also building in the U.S. Congress to pass mandatory emissions reductions legislation, which will likely create “mandatory, market-based limits and incentives on emissions of greenhouse gases.”<sup>13</sup>

The BFS policy and investment of public and private funds in coal-based energy generation runs counter to and undermines all these efforts to grapple with and find solutions for climate change.

#### ***IV. The BFS Policy, Coupled with the PSC Environmental Cost Recovery Clause, Place Undue Financial Risks upon Florida Ratepayers***

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<sup>10</sup> Union of Concerned Scientists, “Gambling with Coal: How Future Climate Laws Will Make New Coal Power Plants More Expensive,” by Barbara Freese and Steve Clemmer, September 2006, page 12.

<sup>11</sup> U.S. Mayor’s Climate Protection Agreement, <http://www.seattle.gov/mayor/climate/>.

<sup>12</sup> Ibid.

<sup>13</sup> Sense of the Senate on Climate Change, H.R.6 1612, Energy Policy Act of 2005, passed by a vote of 54-43.

Given the serious environmental risks associated with coal-fired technology, as well as local, national and international action to address the risks associated with global climate change, the PSC should evaluate and modify its BFS policy to ensure that Florida ratepayers do not shoulder the burden of the environmental costs associated with coal plants.

The U.S. financial community is recognizing that investment in new coal-fired plants is a high risk venture, particularly given the trend toward, and financial costs of, establishing CO<sub>2</sub> reduction programs.

The New York and London based investment firm, “Bernstein Research recently released a report describing the growing momentum toward CO<sub>2</sub> regulation, concluding that ‘regardless of which party wins in the 2008 presidential elections...it is possible that the next administration will favor mandatory national limits on CO<sub>2</sub> emissions.’ The report identifies the utilities facing the greatest financial risk: ‘unregulated coal-fired generators supplying markets where gas is the predominant price setting fuel,’ which cannot pass the added costs of an emissions cap on to consumers. The assumption, of course, is that regulated utilities will be able to pass future compliance costs onto ratepayers...This attitude reveals why, at least for the moment, some sectors of the financial community are still willing to help regulated utilities build new coal plants even when they know that such plants will be substantially more expensive in the carbon-constrained world ahead. Wall Street is not concerned with protecting ratepayers—that will be a job for state regulators.”<sup>14</sup>

The PSC recognizes these trends, and states: “At the national level, new emission requirements are currently under discussion for substances such as mercury and carbon dioxide. Incremental environmental costs are a risk borne by the ratepayers because Florida’s investor-owned utilities may recover the costs of incremental environmental requirements through the Environmental Cost Recovery Clause.”<sup>15</sup>

Other sectors, including the nation’s largest energy generators support mandatory CO<sub>2</sub> emissions reductions programs. “Five of the nation’s top 10 largest private power producers (Calpine, Duke, Entergy, Exelon, and Florida Power & Light), accounting for more than 15 percent of U.S. electricity generation, now support mandatory limits on CO<sub>2</sub> from power plants. Another (Progress) acknowledged in a 2006 special report to shareholders that the evidence for climate change is sufficient to warrant “action” by the “public sector.”<sup>16</sup>

“When a significant share of industry speaks out in favor of environmental regulations, including several major companies in the industry sector likely to be most heavily regulated, it is a strong sign that such regulations are near at hand. It is quite possible that

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<sup>14</sup> Union of Concerned Scientists, *Gambling with Coal: How Future Climate Laws Will Make New Coal Power Plants More Expensive*, September 2006, page 20.

<sup>15</sup> Florida Public Service Commission, *Review of 2005 Ten-Year Site Plan*, page 14.

<sup>16</sup> Union of Concerned Scientists, *Gambling with Coal: How Future Climate Laws Will Make New Coal Power Plants More Expensive*, September 2006, page 20.

CO<sub>2</sub> limits will be in place and operational before the same could be said for a proposed coal plant currently in the regulatory approval process.”<sup>17</sup>

Florida ratepayers should not be saddled with the incremental environmental costs of a state-wide energy policy, which does not account for the risks associated with CO<sub>2</sub> emissions or predictable mandatory programs to address them.

#### ***V. The BFS Policy Increases Energy Inefficiency and Causes Negative Environmental Impacts Associated with Proposed Plant Locations***

Large coal-fired electric plants are being proposed in environmentally sensitive areas, far from the ratepayers the plants will ultimately supply. Such projects result in the use of otherwise productive farmlands and/or natural lands for the plant and for power lines to distribute energy. Electric power distribution over large areas is wasteful and inefficient. Loss of energy over long-distance transfer could cause an additional 10 percent power production requirement with corresponding emissions. Further, there are significant costs to moving fuel to remote locations. A comprehensive inventory of the carbon dioxide emissions resulting from the Balanced Fuel Supply policy would have to take into account the emissions resulting from transportation of coal and other inputs to operate the facility. Additionally, the environmental debt associated with coal extraction should be considered.

#### ***Conclusions and Recommendations***

**Conduct a clear analysis of regulatory risks and opportunities:** The PSC should require Florida utilities to factor future CO<sub>2</sub> cap costs into resource planning, and ensure that mandatory emissions reductions costs are not passed on to Florida ratepayers.

**Factor carbon sequestration into cost projections:** Current research to sequester carbon dioxide may result in the commercial viability of this technology to reduce this greenhouse gas. While these advances are not foreseen for at least a decade and will likely not be sufficient to address the challenges of reducing greenhouse gas emissions confronting Florida, the nation, and the world, at some point, the technology may be required. This eventuality should be factored into consumer-borne costs.

**Modify the BFS Policy to create a Clean Energy Policy for Florida:** Rather than invest public and private dollars into increasing coal-based energy generation (to achieve a Balanced Fuel Supply), the State and utility companies should more aggressively invest in a policy to increase clean energy generating options, by increasing and providing incentives for the development of renewable energy sources, including solar and wind power generation, and co-generation.

**Aggressively promote the development of alternative energy markets:** Less than one percent of Florida’s energy is generated through renewable sources, indicating a huge potential market for clean energy production. Redirecting PSC policy to develop

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<sup>17</sup> Ibid. Page 21.

competitive renewable energy markets is consistent with and strengthens the PSC mission to “promote the development of competitive markets—as directed by state and federal law—by removing regulatory barriers to competition and distributed generation sources, and by emphasizing incentive-based approaches, where feasible, to regulate areas that remain subject to rate of return regulation.”

**Promote and facilitate more aggressive energy conservation and efficiency:**

Investment in energy conservation has proven successful and should be more aggressively pursued by the state and utilities. As the Florida Energy Efficiency and Conservation Act (FEECA) Annual Report states: “As a whole, utility-sponsored Demand-Side Management (DSM) programs have reduced statewide summer peak demand by an estimated 4,588 MW, winter peak demand by 5,491 MW, and energy consumption by an estimated 5,132 GWh, since 1980. These estimated savings include DSM programs sponsored by the FEECA utilities and those which are not currently covered under FEECA. Based on the winter demand reduction, this has deferred the need for eleven typical 500 MW plants, or enough capacity to serve approximately 1.6 million households. By 2013, Demand-Side Management programs are forecasted to reduce summer peak demand by 5,5165 MW, winter peak demand by 6,393 MW, and annual energy consumption by 6,618 MW. This will benefit Florida’s ratepayers by deferring the need for additional generating capacity.”<sup>18</sup>

A new study by the American Council for an Energy-Efficient Economy focuses upon the “Potential for Energy Efficiency and Renewable Energy to Meet Florida’s Growing Energy Demands” and analyzes the economic benefits of adopting more rigorous energy efficiency, conservation and renewable energy policies. “Energy efficiency resource policies can offset the majority of projected load growth in the state over the next 15 years. Expanded development of renewable energy resources would further reduce future needs for electricity in 2023, deferring the need for many new electric power generation projects in the state. The economic savings from the policies recommended in this report can cut Florida consumers’ electricity bills by over \$7 million in 2013 and \$84 billion in 2023. While these savings will require substantial investments, they cost less than the projected cost of electricity from conventional sources.”<sup>19</sup>

While the Public Services Commission does not have the statutory mandate to promote energy efficiency in new and existing urban developments, it can and should more aggressively identify an environmentally sound set of energy policies and promote, within that, energy efficiency. For example, programs are underway nationwide to increase energy efficiency and achieve 100 percent reductions in CO<sub>2</sub> emissions in urban development. (Buildings, including homes, nationwide were responsible for 48 percent of all CO<sub>2</sub> emissions in 2003, according to the US Energy Administration statistics). One example is the Leadership in Energy and Environmental Design (LEED). Seven federal

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<sup>18</sup> Florida Public Service Commission, Annual Report on Activities Pursuant to the Florida Energy Efficiency and Conservation Act, page 8.

<sup>19</sup> American Council for an Energy-Efficient Economy, “Potential for Energy Efficiency and Renewable Energy to Meet Florida’s Growing Energy Demands,” February 2007, Report Number E072, page iv, <http://aceee.org>.

agencies, nineteen US states, 28 municipalities (including five Florida cities) participate in LEED. Additionally, thirteen projects in Florida are incorporating LEED standards. The LEED program sets forth that “in order to reverse the trend of rising CO<sub>2</sub> levels, all new buildings, developments and major renovation projects must immediately cut the amount of fossil fuel energy they use to construct and operate according to these targets: 50 percent less CO<sub>2</sub>-emitting energy use immediately; 60 percent less in 2010; 70 percent less in 2015; 80 percent less in 2020; 90 percent less in 2025, and zero CO<sub>2</sub> emissions in 2030 (no fossil fuel energy).”

**Promote ecologically sound locations for power plants:** An ecologically sound and fiscally responsible alternative to the BFS policy would be to develop policy alternatives that promote smaller plants on, or close to, load centers that are already connected to the electrical grid. Promoting decentralized co-generation or combined heat and power generators would also contribute electricity in the most efficient and cost-effective form because they recycle waste heat.

As the state regulatory agency responsible for protecting the public good, the PSC can and should develop an environmentally sound energy policy. Many models both nationally and internationally exist to achieve an environmentally clean and sound energy supply, enhance security and meet future demand for energy. Rather than focus on high risk alternatives, such as coal, the Commission should devote its time, expertise and creativity to developing and promoting a safe, environmentally sound and fiscally conservative energy future for Florida and Floridians. Thank you for your attention to this important issue. We look forward to working with the Commission to develop and promote a clean energy policy for Florida.

Sincerely,

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