

**A PUBLIC BENEFIT FUND FOR FLORIDA: CREATING A
SUSTAINABLE ENERGY FUTURE FOR THE SUNSHINE STATE**

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I. INTRODUCTION

Over the next twenty years, Florida will have to greatly expand its capacity to provide energy services to meet projected growth. The conventional approach to meeting capacity needs is to build new power plants and run new power lines throughout the state. Rather than continuing to center Florida’s future on conventional supplies, Florida should focus more on energy efficiency, and renewable and other clean alternative generation. The expert advisors to the Florida Energy 2020 Study Commission recommended that Florida institute an independently administered Public Benefit Fund to make sustainable energy a part of Florida’s future supply mix.¹

II. ENERGY EFFICIENCY

Energy efficiency means using the same or less energy to do the same amount of work. It should be distinguished from “conservation” (energy conservation means doing less with less and energy efficiency means doing the same or more with less). Widespread use of technologies that improve the energy efficiency of Florida’s buildings and equipment (both the existing and the emerging fleets) is Florida’s cheapest and cleanest energy supply. Both the Environmental TAC and the Public Benefits TAC gave us some great news: *By investing more in energy efficiency for our homes and businesses, Florida can simultaneously reduce total electric bills and power plant pollution, while making the states,*

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1. The reports of the Energy Study Commission’s Public Benefits Technical Advisory Committee (TAC) and the Environmental TAC are *available at* http://www.myflorida.com/myflorida/government/taskandcommissions/energy_commission/technicalReports.html.

energy supply more diverse and reliable. The Florida Energy Commission's expert advisors are not alone in emphasizing the value of efficiency investments. Governor Bush recognized, in August 2001, that:

Over the next 20 years, Florida will have to greatly expand its energy capacity and supply to meet increasing demand. Yet the cheapest, easiest and fastest kilowatt we generate is the one we can save through efficiencies. There is a consensus on conservation and efficiency, so let us start there.

Most would agree that, when it comes to meeting future energy needs, we should invest in efficiency when that would mean lower electric bills than new power plants. The bill savings available from such least-cost efficiency investments — and the disposable income those bill savings would create — should be high on the list of solutions to Florida's recent economic struggles. Of course, efficiency investments also deliver much more than bill savings. As a zero-pollution resource, efficiency also avoids environmental/health impacts from the power plants and wires it displaces.

Some wonder: if efficiency is really cheaper, cleaner, and faster, why doesn't it just occur without any state investment? Extensive studies by the US Department of Energy and many states have revealed market imperfections and flaws² that create significant barriers to energy efficiency investments. These barriers to least-cost efficiency are so thoroughly documented that Florida, and virtually every other state, has adopted laws that use ratepayer funds for incentive programs to overcome them.³ These programs use incentives to install efficiency technologies in the existing and emerging fleet of equipment and buildings. The incentives may be provided to both consumers (e.g. home or business owners) and suppliers (e.g. homebuilders; industrial motor dealers) and can be either financial (e.g. rebates) or technical (e.g., design, inspection, or marketing assistance).

Florida's efficiency incentive programs are now designed and delivered by electric utilities. Last year, through electric rates, Florida's consumers invested about \$82 million, for utility-designed efficiency incentive programs. These incentive programs are funded through electric rates because efficiency resources cost less than

2. These flaws are also described in the Environmental and Public Benefit TAC Reports.

3. See, e.g., Florida Energy and Conversation Act, FLA. STAT. §§388.80-.85, 403.519 (2001).

generating and delivering electricity - i.e., the efficiency technologies the programs install in Florida's homes and businesses displace the need for more costly power plant and power line alternatives. Such investments make economic sense since efficiency is the least cost way to meet Florida's growing need for energy service. Florida's decision to fund efficiency investments through electric rates is clearly wise, but it is equally clear that much more can, very economically, be done.

Florida's efficiency incentive programs are very weak in comparison to other states.⁴ *Florida's efficiency programs now aim to install only about one-third of the efficiency technologies that cost less than power supply alternatives.* If utilities can save money by investing in efficiency rather than by generating and delivering power, why isn't that occurring? *Florida's least-cost efficiency potential is obstructed by a fundamental conflict of interest. Utilities, which profit from selling electricity, are called upon to design efficiency incentive programs that simultaneously reduce both consumer bills and electricity sales.* So long as this conflict remains, Florida's least-cost efficiency resources will not materialize — and we will continue to forego electric bill savings and needlessly build power plants and wires. Many other states have removed this conflict so their citizens, families, and businesses alike can receive the economic and environmental benefits of energy efficiency. If the conflict is not removed, Florida's efficiency resources will remain at a competitive disadvantage with power supply alternatives.

To address this conflict, the Public Benefit and Environmental TACs recommended that Florida appoint an independent statewide Efficiency Administrator. Efficiency investments would remain in electric rates, but Florida's efficiency incentive programs would be designed by an independent statewide administrator (who would also arrange, by contracting with others, for implementation of the programs). Utilities would have opportunities to profit from implementing programs designed by, and funded through, the statewide Efficiency Administrator — and could thus remain the primary "customer contact" that delivers efficiency incentives.

Efficiency programs should be designed with ample stakeholder/public input to: 1) maximize bill savings to consumers in ways that enhance reliability and lower environmental impacts; 2) offer efficiency investment and assistance opportunities across a wide range of end-use applications so that all consumers have an

4. Both the Environmental and the Public Benefits TAC Reports document that utility-designed efficiency programs in Florida fall far short of national averages, and fail to secure efficiency technologies that cost less than power supply alternatives. See Attachment A for details.

opportunity to lower their bills; and 3) devote a portion of their incentives to low income communities. With such an independently administered "Public Benefit Fund," Florida could simultaneously reduce power plants, power lines, and electric bills. Also, Florida's current level of investment in energy efficiency should be increased so that we invest in all the efficiency that costs less than power plants and wires. Public Benefit Funds have already been adopted in more than twenty-two other states. Unlike the current utility-administered system, an independently administered Public Benefit Fund is competitively neutral — a valuable feature even in today's more competitive energy markets.

Without such an independently administered Public Benefit Fund: 1) Florida will continue to build power plants and lines when it would cost less to make our homes and businesses more energy efficient; and 2) Florida's homes and businesses will continue to forfeit the bill savings available from investing in efficiency technologies that cost less than power supply alternatives.

Florida should also improve its efforts to develop and deploy clean alternative energy supplies.

III. RENEWABLE AND CLEAN ENERGY ALTERNATIVES

Florida, a peninsula, with virtually no conventional fuels in-state, now depends heavily on out-of-state energy supplies. Developing renewable and clean in-state supplies (such as solar, hydrogen fuel cells, and sustainable forms of bio-energy) would keep energy dollars and jobs in Florida, and offer tremendous potential to reduce the impacts on health and the ecosystem now associated with energy services. They also present a valuable economic development opportunity for Florida: given our proximity and cultural connections to neighboring undeveloped countries where distributed energy supplies are most cost effective. Florida's future rests on the development and deployment of our in-state renewable and clean technologies — but these emerging technologies continue to face many barriers.

As a policy of prudent energy portfolio diversification and environmental protection, the national government and most states have invested in renewable and clean alternative energy supplies, on both demand and supply side. Florida now funds such research, development, demonstration, and deployment (RDD&D) investments with both utility and university sources. The Public Benefits TAC documents that we now invest far less than other states in such endeavors — comparing Florida's current 0.004 mills/kwh (kilowatt-hour) investment to a national range of 0.02 - 85 mills/kwh. The development of clean alternative energy is also

influenced by the incentives created by state tax, regulatory, and fee structures. The state tax code may well contain loopholes that should be addressed.⁵

Florida's efforts to promote renewable and clean energy supplies are now implemented by many agencies, including the PSC, DEP, DCA, the state university system, economic development partnerships, as well as a variety of regional and local initiatives. Florida's Solar Energy Center (part of the University of Central Florida), one of the nation's premier research institutes in both renewables and high efficiency technologies, now serves as the state's energy research and training center.⁶ The Florida Energy Office manages nationally funded initiatives and a virtually depleted oil-overcharge fund. But no state agency or official has clear responsibility for managing, in a "big picture" sense, the development of Florida's native renewable and clean supplies, on both demand and supply side.

To meet these challenges, Florida should: 1) develop a coordinated strategy to such clean energy investments; and 2) invest more in development and deployment of renewable and clean energy alternatives through an independently administered Public Benefit Fund. This effort must include an assessment of the commercial and technical potential and sustainability of Florida's renewable and clean alternatives supplies, to identify and prioritize future funding requirements and priorities. Such reforms are particularly critical given the depletion of the Petroleum Violation Escrow funds that, until now, had been available to operate the Florida Energy Office.

ATTACHMENT A: DEMAND-SIDE RESOURCE PRIMER

Energy supply needs can be met by producing electricity or by reducing the demand for it. Three types of demand-side activities should be distinguished: energy efficiency, load-management, and price responsive load. More often than not, the terms "energy conservation" and "energy efficiency" are used interchangeably, but there are some important differences. As the Environmental TAC

5. For example, the state tax code now provides a tax credit for an efficiency technology so outdated it would violate the current state energy code, and exempts some of the dirtiest fuels, fuel oil numbers 5 and 6, from the state's petroleum pollutant tax.

6. The Florida Solar Energy Center (FSEC) has received about \$3 million/year in operating funds from Florida's State University System -- though a large part of university system funding had been from oil overcharge monies that are now depleted). The FSEC also performs contracted research and training for external sponsors, including utilities, at funding levels that range from six to ten million dollars annually.

report states: “energy conservation means doing less with less and energy efficiency means doing the same or more with less.”

Demand side activities use financial incentives and technical services to encourage and assist customers to reduce, or shift the time of, their demand for energy. Broadly speaking, activities directed toward reducing total energy use (kilowatt-hours) are termed “energy efficiency” programs, and those directed toward shifting or reducing use at peak demand periods (kilowatts) are called “load management” (sometimes demand-management) programs. The strategic objective best defines whether a program is an energy efficiency or a load management program, since both program types can reduce kws and kwhs.

Efficiency programs typically focus on installing high efficiency equipment and building practices by offering consumers rebates or low-cost building or industrial system design services. A prime example of a pure load management is where utilities are allowed to cycle on and off individual customer appliances in return for a bill credit. Demand-side activities that use variable price signals to alter consumer behavior, particularly at peak periods, are called “price responsive load” programs. These programs are typically associated with load management more than with energy efficiency objectives.

The demand-side programs designed and implemented by Florida’s utilities focus almost exclusively on load or kw reduction. This derives from the Florida Public Service Commission’s virtually exclusive reliance on a cost-effectiveness test (the “RIM” test) which counts as a cost the utility revenue reductions which take place when consumers bills are reduced by efficiency improvements. The Public Benefit TAC Report notes that:

Florida relies more heavily on the RIM test than any other state to limit the scope of utility DSM programs. As a result, Florida spends a relatively small fraction of its utility DSM dollars on improving end-use efficiency. . . Florida’s utilities have not aggressively pursued all energy efficiency programs. Energy efficiency was only 24.5% of Florida’s total DSM expenditures; compared to 57% of total national DSM expenditures, based on 1999 data.