

# FPL Group's Strategy for Greenhouse Gas Reductions

Ray Butts, Manager Environmental Services Florida Power & Light Co.

May 10, 2007

### Cautionary Statements and Risk Factors That May Affect Future Results

Any statements made herein about future operating results or other future events are forward-looking statements under the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may include, for example, statements regarding anticipated future financial and operating performance and results, including estimates for growth. Actual results may differ materially from such forward-looking statements. A discussion of factors that could cause actual results or events to vary is contained in the Appendix and in our SEC filings.



### Leading U.S. Generator

Nearly 34,000 Megawatts (MW)



## FPL Group's Strategy for Greenhouse Gas Reductions





## Comparison of Largest CO2 Emitting Electric Generators in the U.S.

CO2 Emissions Rates All generation sources



Source: NRDC report "Benchmarking the Top 100 Electric Power Producers " - 2004 data



### Greenhouse Gas Emissions Flow, 2004 (million metric tons of carbon dioxide-equivalent)



Source: Energy Information Administration, Emissions of Greenhouse Gases in the United States 2004. December 2005





## A CALL FOR ACTION

Consensus Principles and Recommendations from the **U.S. Climate Action Partnership**: A Business and NGO Partnership



### The Environmental Goal

 Limit global atmospheric GHG concentrations to a level that minimizes large-scale adverse climate change impacts to human populations and the natural environment

 Stabilize concentrations over the long term at a carbon dioxide equivalent level between 450-550 parts per million







### **Greenhouse Gas Reduction Wedges**



Source: Pacala and Socolow, Science Magazine, 2004.



### **Greenhouse Gas Reduction Wedges**





Source: Pacala and Socolow, Science Magazine, 2004.

### Wind Energy: Early Participant; Aggressive Expansion

### FPL Energy Wind Generation



- Involved in wind energy since 1989
- Committed to major expansion in 1999
- Approximately 34% of U.S. installed base
- Expect to invest ≥ \$2.8 billion in 2007 and 2008



~ \$150 million in net income (2006)

## FPL Group's Strategy for Greenhouse Gas Reductions

FPL Group Wind Generation and CO2\* Offset

DATE	Wind Generation (MWhs)	Avoided CO2 Emissions (tons)
2001	2,331,606	1,544,537
2006	7,264,420	6,384,100

\*Compared to National Average CO2 Emissions Rate from Electric Power Sector: DOE EIA Annual Energy Outlook,2006





In the Mohave Desert FPL Energy owns 50% of and operates the largest solar fields in the world.



### World Wildlife Fund PowerSwitch! Commitment







- FPL Group has committed to a 15% improvement in generation efficiency by 2020 from a 2000 baseline year
- Our latest estimates suggest that by 2020 we will actually improve efficiency by approximately 25%.
- Generation efficiency improvements will result in an estimated 19 Million tons of CO2 reductions in 2020 as compared to the same generation in 2000.

Repowering older generation and meeting growth needs through the addition of efficient generation reduces greenhouse gas emissions.

Heat Rate is a measure of efficiency. The lower the heat rate, the more efficient the unit is.

In 2010, FPL's heat rate is projected to be almost 25% lower than industry average.







# FPL is the #1 utility in the U.S. for Conservation programs





Source U.S. Department of Energy

**MWs** Avoided

# Florida is among the fastest-growing states in the U.S.

- Adding ~1,000 new residents per day.
- FPL's 2005 Customer growth was 2.9%, compared to 1.9% for the industry.
- Residential customers use about 30% more electricity than 20 years ago.
- To meet Florida's growth FPL needs to add ~600 MW capacity/year





# Significant short-term reductions in CO<sub>2</sub> intensity are possible – if the right price signals exist



Source: McKinsey & Co. "The McKinsey Quarterly – Number 1"

## FPL Group CO2 Emissions Rate Comparisons

CO2 Emissions Rates 2004 data



# Financial success and environmental performance can co-exist









## FPL Group's Strategy for Greenhouse Gas Reductions

#### FPL's Position for CO2 Control Policy

Analysis supports a gradually increasing, revenue-neutral CO2 fee

•Mandatory - all	must be involved or it's
not robust	

Market Based – regulate quantity or regulate price; incentives for reductions.
Economy Wide-All CO<sub>2</sub> emissions; all sources.

•Applied Upstream-CO<sub>2</sub> pricing fee on fossil fuels, based on carbon content applied upstream where fossil fuels enter the economy..

•Phased-In—allows time for business to respond.

•Stable and predictable—encourages greater investment, reduces economic impact. •Provide protections only where necessary – avoids windfalls and protects against impacts to energy-intensive industries against foreign competition not facing CO2 costs.

•Revenue neutral—revenue can be used to facilitate  $CO_2$  reductions and R&D; some to mitigate negative impacts on lower income consumers and affected producers; and the remainder to be returned to consumers.

### Technology choices represent longterm commitments



High Natural Gas & Low Emissions Costs

Moderate Natural Gas & Low Emissions Costs Moderate Natural Gas & Moderate Emissions Costs

High Natural Gas & High Emissions Costs



Note: Reflects illustrative combinations of CO<sub>2</sub> costs and natural gas prices Source: Internal Estimates



### **Renewable Resources Cannot Reliably and Economically Meet Florida's Growing Need**

	1960 MW Advanced Coal	1960 MW Solar	1960 MW Wind
Capacity Factor	90%	< 20%	5-10%
Cost	\$5.7 billion	\$13.8 billion	\$4.6 billion
Land Requirements	3,000 acres	12,000 acres	50,000 acres
Hurricane Damage Potential	Low	Very High	Moderate to High

# As a source of energy, wind is the most economical renewable





### Advanced Power Generation and Pollution Control Technologies





### **Proper "recycling" of CO<sub>2</sub> revenues is required if** the economy is not to be damaged





# All approaches involve administrative complexity; some are more complex than others



all approaches create a revenue stream.

At realistic values for CO<sub>2</sub> pricing, the market value of allowances will be large

	2010			2030	
Allowance \$ per ton	Estimated Tons (Billions)	Total Value (Billions)	Estim Ton (Billic	ated s * ons)	Total Value (Billions)
\$10		\$70		ſ	\$55
\$20	7	\$140	5.	.5	\$110
\$50		\$350			\$275



\* Source: 1990 level from DOE Annual Energy Review 2005 (published in July 2006)

## FPL Group's Strategy for Greenhouse Gas Reductions

Continue to lead the industry in the development of wind and solar generation.

Continuing to develop a balanced portfolio of generation assets with high energy efficiency and low emission rates.

Continue FPL's award winning Conservation and Demand Side Management Programs.

Develop partnerships with industry groups and NGOs to advocate regulatory positions that promote technologically and economically sound solutions to reducing greenhouse gas emissions.

Advocate policy positions that support an economy wide GHG reduction policy that includes a price signal for carbon that will result in real GHG emissions reductions and will not harm the U.S. economy.



## FPL Group's CO2 Emissions--Total Tons

CO2 TONS (x1,000) 1995 - 2004





## Cautionary statements and risk factors that may affect future results

In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 (Reform Act), FPL Group, Inc. (FPL Group) and Florida Power & Light Company (FPL) are hereby providing cautionary statements identifying important factors that could cause FPL Group's or FPL's actual results to differ materially from those projected in forward-looking statements (as such term is defined in the Reform Act) made by or on behalf of FPL Group and FPL in this presentation, on their respective websites, in response to questions or otherwise. Any statements that express, or involve discussions as to, expectations, beliefs, plans, objectives, assumptions or future events or performance (often, but not always, through the use of words or phrases such as will likely result, are expected to, will continue, is anticipated, believe, could, estimated, may, plan, potential, projection, target, outlook) are not statements of historical facts and may be forward-looking. Forward-looking statements involve estimates, assumptions and uncertainties. Accordingly, any such statements are qualified in their entirety by reference to, and are accompanied by, the following important factors (in addition to any assumptions and other factors referred to specifically in connection with such forward-looking statements) that could cause FPL Group's or FPL's actual results to differ materially from those contained in forward-looking statements made by or on behalf of FPL Group and FPL.

Any forward-looking statement speaks only as of the date on which such statement is made, and FPL Group and FPL undertake no obligation to update any forward-looking statement to reflect events or circumstances, including unanticipated events, after the date on which such statement is made. New factors emerge from time to time and it is not possible for management to predict all of such factors, nor can it assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement.

The following are some important factors that could have a significant impact on FPL Group's and FPL's operations and financial results, and could cause FPL Group's and FPL's actual results or outcomes to differ materially from those discussed in the forward-looking statements:

FPL Group and FPL are subject to complex laws and regulations and to changes in laws and regulations as well as changing governmental policies and regulatory actions, including initiatives regarding deregulation and restructuring of the energy industry and environmental matters. FPL holds franchise agreements with local municipalities and counties, and must renegotiate expiring agreements. These factors may have a negative impact on the business and results of operations of FPL Group and FPL.

•FPL Group and FPL are subject to complex laws and regulations, and to changes in laws or regulations, including the Public Utility Regulatory Policies Act of 1978, as amended, the Public Utility Holding Company Act of 2005, the Federal Power Act, the Atomic Energy Act of 1954, as amended, the Energy Policy Act of 2005 (2005 Energy Act) and certain sections of the Florida statutes relating to public utilities, changing governmental policies and regulatory actions, including those of the Federal Energy Regulatory Commission (FERC), the Florida Public Service Commission (FPSC) and the legislatures and utility commissions of other states in which FPL Group has operations, and the Nuclear Regulatory Commission (NRC), with respect to, among other things, allowed rates of return, industry and rate structure, operation of nuclear power facilities, operation and construction of plant facilities, operation and construction of transmission facilities, acquisition, disposal, depreciation and amortization of assets and facilities, recovery of fuel and purchased power costs, decommissioning costs, return on common equity and equity ratio limits, and present or prospective wholesale and retail competition (including but not limited to retail wheeling and transmission costs). The FPSC has the authority to disallow recovery by FPL of any and all costs that it considers excessive or imprudently incurred. The regulatory process generally restricts FPL's ability to grow earnings and does not provide any assurance as to achievement of earnings levels.

•FPL Group and FPL are subject to extensive federal, state and local environmental statutes as well as the effect of changes in or additions to applicable statutes, rules and regulations relating to air quality, water quality, climate change, waste management, wildlife mortality, natural resources and health and safety that could, among other things, restrict or limit the output of certain facilities or the use of certain fuels required for the production of electricity and/or require additional pollution control equipment and otherwise increase costs. There are significant capital, operating and other costs associated with compliance with these environmental statutes, rules and regulations, and those costs could be even more significant in the future.



•FPL Group and FPL operate in a changing market environment influenced by various legislative and regulatory initiatives regarding deregulation, regulation or restructuring of the energy industry, including deregulation or restructuring of the production and sale of electricity. FPL Group and its subsidiaries will need to adapt to these changes and may face increasing competitive pressure.

•FPL Group's and FPL's results of operations could be affected by FPL's ability to renegotiate franchise agreements with municipalities and counties in Florida.

The operation and maintenance of power generation facilities, including nuclear facilities, involve significant risks that could adversely affect the results of operations and financial condition of FPL Group and FPL.

•The operation and maintenance of power generation facilities involve many risks, including, but not limited to, start up risks, breakdown or failure of equipment, transmission lines or pipelines, the inability to properly manage or mitigate known equipment defects throughout our generation fleets unless and until such defects are remediated, use of new technology, the dependence on a specific fuel source, including the supply and transportation of fuel, or the impact of unusual or adverse weather conditions (including natural disasters such as hurricanes), as well as the risk of performance below expected or contracted levels of output or efficiency. This could result in lost revenues and/or increased expenses, including, but not limited to, the requirement to purchase power in the market at potentially higher prices to meet contractual obligations. Insurance, warranties or performance guarantees may not cover any or all of the lost revenues or increased expenses, including the cost of replacement power. In addition to these risks, FPL Group's and FPL's nuclear units face certain risks that are unique to the nuclear industry including, but not limited to, the ability to store and/or dispose of spent nuclear fuel, the potential payment of significant retrospective insurance premiums, as well as additional regulatory actions up to and including shutdown of the units stemming from public safety concerns, whether at FPL Group's and FPL's plants, or at the plants of other nuclear operators. Breakdown or failure of an operating facility of FPL Energy may prevent the facility from performing under applicable power sales agreements which, in certain situations, could result in termination of the agreement or incurring a liability for liquidated damages.

The construction of, and capital improvements to, power generation facilities involve substantial risks. Should construction or capital improvement efforts be unsuccessful, the results of operations and financial condition of FPL Group and FPL could be adversely affected.

•FPL Group's and FPL's ability to successfully and timely complete their power generation facilities currently under construction, those projects yet to begin construction or capital improvements to existing facilities within established budgets is contingent upon many variables and subject to substantial risks. Should any such efforts be unsuccessful, FPL Group and FPL could be subject to additional costs, termination payments under committed contracts, and/or the write-off of their investment in the project or improvement.

The use of derivative contracts by FPL Group and FPL in the normal course of business could result in financial losses that negatively impact the results of operations of FPL Group and FPL.

•FPL Group and FPL use derivative instruments, such as swaps, options and forwards to manage their commodity and financial market risks. FPL Group provides full energy and capacity requirements services and engages in trading activities. FPL Group could recognize financial losses as a result of volatility in the market values of these contracts, or if a counterparty fails to perform. In the absence of actively quoted market prices and pricing information from external sources, the valuation of these derivative instruments involves management's judgment or use of estimates. As a result, changes in the underlying assumptions or use of alternative valuation methods could affect the reported fair value of these contracts. In addition, FPL's use of such instruments could be subject to prudency challenges and if found imprudent, cost recovery could be disallowed by the FPSC.

FPL Group's competitive energy business is subject to risks, many of which are beyond the control of FPL Group, that may reduce the revenues and adversely impact the results of operations and financial condition of FPL Group.



•There are other risks associated with FPL Group's competitive energy business. In addition to risks discussed elsewhere, risk factors specifically affecting FPL Energy's success in competitive wholesale markets include the ability to efficiently develop and operate generating assets, the successful and timely completion of project restructuring activities, maintenance of the qualifying facility status of certain projects, the price and supply of fuel (including transportation), transmission constraints, competition from new sources of generation, excess generation capacity and demand for power. There can be significant volatility in market prices for fuel and electricity, and there are other financial, counterparty and market risks that are beyond the control of FPL Energy. FPL Energy's inability or failure to effectively hedge its assets or positions against changes in commodity prices, interest rates, counterparty credit risk or other risk measures could significantly impair FPL Group's future financial results. In keeping with industry trends, a portion of FPL Energy's power generation facilities operate wholly or partially without long-term power purchase agreements. As a result, power from these facilities is sold on the spot market or on a short-term contractual basis, which may affect the volatility of FPL Group's financial results. In addition, FPL Energy's business depends upon transmission facilities owned and operated by others; if transmission is disrupted or capacity is inadequate or unavailable, FPL Energy's ability to sell and deliver its wholesale power may be limited.

FPL Group's ability to successfully identify, complete and integrate acquisitions is subject to significant risks, including the effect of increased competition for acquisitions resulting from the consolidation of the power industry.

•FPL Group is likely to encounter significant competition for acquisition opportunities that may become available as a result of the consolidation of the power industry, in general, as well as the passage of the 2005 Energy Act. In addition, FPL Group may be unable to identify attractive acquisition opportunities at favorable prices and to successfully and timely complete and integrate them.

Because FPL Group and FPL rely on access to capital markets, the inability to maintain current credit ratings and access capital markets on favorable terms may limit the ability of FPL Group and FPL to grow their businesses and would likely increase interest costs.

•FPL Group and FPL rely on access to capital markets as a significant source of liquidity for capital requirements not satisfied by operating cash flows. The inability of FPL Group, FPL Group Capital Inc and FPL to maintain their current credit ratings could affect their ability to raise capital on favorable terms, particularly during times of uncertainty in the capital markets, which, in turn, could impact FPL Group's and FPL's ability to grow their businesses and would likely increase their interest costs.

Customer growth in FPL's service area affects FPL Group's and FPL's results of operations.

•FPL Group's and FPL's results of operations are affected by the growth in customer accounts in FPL's service area. Customer growth can be affected by population growth as well as economic factors in Florida, including job and income growth, housing starts and new home prices. Customer growth directly influences the demand for electricity and the need for additional power generation and power delivery facilities at FPL.

Weather affects FPL Group's and FPL's results of operations.

•FPL Group's and FPL's results of operations are affected by changes in the weather. Weather conditions directly influence the demand for electricity and natural gas and affect the price of energy commodities, and can affect the production of electricity at wind and hydro-powered facilities. FPL Group's and FPL's results of operations can be affected by the impact of severe weather which can be destructive, causing outages and/or property damage, may affect fuel supply, and could require additional costs to be incurred. At FPL, recovery of these costs is subject to FPSC approval.

FPL Group and FPL are subject to costs and other effects of legal proceedings as well as changes in or additions to applicable tax laws, rates or policies, rates of inflation, accounting standards, securities laws and corporate governance requirements.

•FPL Group and FPL are subject to costs and other effects of legal and administrative proceedings, settlements, investigations and claims, as well as the effect of new, or changes in, tax laws, rates or policies, rates of inflation, accounting standards, securities laws and corporate governance requirements.



Threats of terrorism and catastrophic events that could result from terrorism may impact the operations of FPL Group and FPL in unpredictable ways.

•FPL Group and FPL are subject to direct and indirect effects of terrorist threats and activities. Generation and transmission facilities, in general, have been identified as potential targets. The effects of terrorist threats and activities include, among other things, terrorist actions or responses to such actions or threats, the inability to generate, purchase or transmit power, the risk of a significant slowdown in growth or a decline in the U.S. economy, delay in economic recovery in the U.S., and the increased cost and adequacy of security and insurance.

The ability of FPL Group and FPL to obtain insurance and the terms of any available insurance coverage could be affected by national, state or local events and company-specific events.

•FPL Group's and FPL's ability to obtain insurance, and the cost of and coverage provided by such insurance, could be affected by national, state or local events as well as company-specific events.

FPL Group and FPL are subject to employee workforce factors that could affect the businesses and financial condition of FPL Group and FPL.

•FPL Group and FPL are subject to employee workforce factors, including loss or retirement of key executives, availability of qualified personnel, collective bargaining agreements with union employees and work stoppage that could affect the businesses and financial condition of FPL Group and FPL.

The risks described herein are not the only risks facing FPL Group and FPL. Additional risks and uncertainties not currently known to FPL Group or FPL, or that are currently deemed to be immaterial, also may materially adversely affect FPL Group's or FPL's business, financial condition and/or future operating results.

