

# FLORIDA PUBLIC SERVICE COMMISSION

## WORKSHOP ON COST- EFFECTIVENESS OF ENERGY EFFICIENCY

On Behalf of  
The Natural Resources Defense Council &  
The Southern Alliance for Clean Energy

PRESENTED BY:  
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Williams & Jacobs

April 25, 2008

# FLORIDA ENERGY POLICY

- Driven More Prominently By Externalities
- Issues of Vast Scope
- Challenged to Meet Phenomenal Growth in Demand
- Highly Vulnerable to Global Energy Markets



# FLORIDA'S ENERGY MARKET

- Explosive Growth in Consumption –

Avg. Household Consumption  
(million BTUs)

	<u>1993</u>	<u>2001</u>
California	65.2	60.7
Florida	52.1	155.6
New York	121.1	60.9
Texas	94.7	152.4

Source: Energy Information Administration

# FLORIDA'S ENERGY MARKET

- Annual Growth rate: 900 MW - 1,500 MW per year
- At Present Pace, Projected to Build 45 New 500 MW Plants by 2020

# FLORIDA'S ENERGY MARKET

## Important Challenges:

- Transmission Constraints
- Nuclear Expansion ( 4 proposed new units)
- Fuel Diversity
- Environmental Regulations

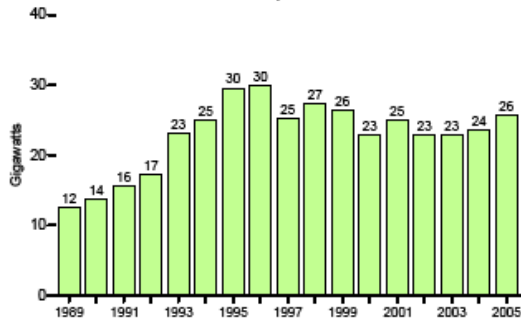


# FLORIDA'S ENERGY POLICY

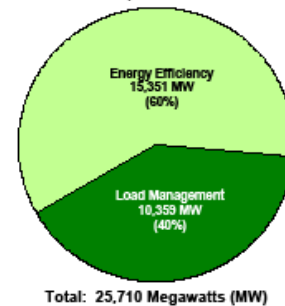
## Offers substantially diminished role for energy efficiency despite potential benefits.

Figure 8.13 Electric Utility Demand-Side Management Programs

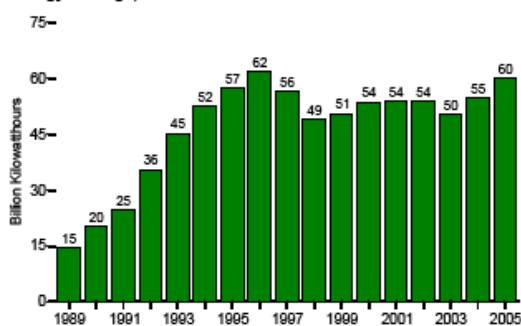
Actual Peakload Reductions Total, 1989-2005



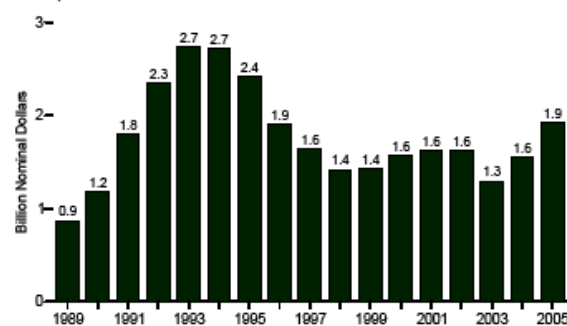
Actual Peakload Reductions, 2005



Energy Savings, 1989-2005



Costs, 1989-2005



Source: Table 8.13.

# FLORIDA'S ENERGY EFFICIENCY PORTFOLIO

- *WHAT SHOULD BE ITS CONTENT?*
- *WHAT DOES IT COST?*
- *WHAT DOES IT SAVE?*

# FLORIDA'S ENERGY EFFICIENCY PORTFOLIO

- Navigant Consulting Overview of DSM Potential Studies – Cost of Energy Saved  
( *Estimates of \$/kWh saved* )

<u>Source</u>	<u>Residential</u>	<u>Commercial</u>	<u>All Sectors</u>
2002 Southeastern States Study			\$.026
2005 ACEEE EE To Address Midwest Gas Crisis Study	\$.044	\$.024	
2003 ACEEE Price Effects of EE and RE Study	\$.051	\$.029	
2006 WGA Study DSM Programs			\$.025
Public Sector			\$.047
State of Connecticut Current SCE Plans	\$.041	\$.021	\$.031
Current PG&E Plans			\$.037



# FLORIDA'S ENERGY EFFICIENCY PORTFOLIO

## Electricity Savings Achieved Per Year in Leading States<sup>[1]</sup>

	<u>Year</u>	<u>Annual Incr GWh Savings</u>	<u>kWh Sales</u>	<u>Savings/Year (%)</u>
California	2001	4760	239,654	2.0%
	2002	pending	235,249	pending
Connecticut	2001	314	30,000	1.0%
	2002	246	31,000	0.8%
Massachusetts	2000	273	51,773	0.5%
	2001	309	52,092	0.6%
Rhode Island	2001	61	7,341	0.8%
	2002	51	7,516	0.7%
Vermont (Efficiency VT only)	2001	37	5,051	0.7%
	2002	41	5,077	0.8%
	2003	54	5,127	1.1%

<sup>[1]</sup> Source: Nadell Steven, Anna Shipley, R. Neal Elliott, *The Technical, Economic and Achievable Potential of Energy Efficiency in the US - A Meta Analysis*, American Council for an Energy-Efficient Economy (2004).

# FLORIDA'S ENERGY EFFICIENCY PORTFOLIO

- It Is Vitally Important That There Be A More Complete Analysis of the True Life-Cycle Costs, Risks and Benefits Of Energy Efficiency Resources Available To Meet the Demand In Florida

# FLORIDA'S ENERGY EFFICIENCY PORTFOLIO

- MOST SIGNIFICANT OPPORTUNITIES
  - Integrated Planning
  - Development of Demand-Side Strategies
  - Innovation in Energy Efficiency
  - Cultivation of Renewables and Distributed Generation

# FLORIDA'S ENERGY EFFICIENCY PORTFOLIO

MARGINALIZES  
PORTFOLIO MANAGEMENT STRATEGIES

Alliance to Save Energy reports:

“Hundreds of untapped MW savings as a result of underutilization of energy efficiency and renewables”

# Thank You!

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