

# Construction of a Large Photovoltaic System

Presentation to the  
Gainesville City Commission  
October 8, 2007



Source: Black & Veatch

# Staff Concerns/Issues

- Impact to Rates – PV is still very expensive
- Need for cost effective energy supply
  - TRC test for DSM
  - Biomass RFP
  - Other supply options
- Customer's stated support for solar
  - Focus group findings
  - Survey results
- Unique Opportunity

# Floridians Support Solar

- Would you oppose or support having the Florida legislature encourage solar investment in Florida if it would cost you one dollar or less per month on your utility bill?

Region	Support	Oppose	Not Sure
North FL	71%	21%	8%
South FL	78%	17%	5%
Gulf Coast	81%	14%	5%
Central FL	79%	14%	7%

Source: Florida Solar Energy Center – poll conducted by Mason-Dixon Polling & Research, Inc. – Feb. 2007

# GRU Customers Support Solar

- Would you support or oppose **GRU**'s efforts to encourage solar energy investments in your community if it would add one dollar or less per month to all customers' utility bills?

Support	75%
Oppose	17%
Not Sure	8%

# The Opportunity

- Private company willing to pay for 30% of a large PV System
- Will provide highly visible site on major highway
- Construct 250 kW System

# Could Serve as a Demonstration Project

- Educate and showcase solar energy
- 250 kW system – largest in North Florida
- Enough energy to power 60 homes for a year
- Provides covered parking
- May receive additional Grant Funding







# Estimated Cost

- \$2.2 - \$2.7 million
- Includes structure and panels



# FLPSC Covered Parking in Tallahassee



# Conceptual Plan

- Third party would construct, own and operate
- GRU would enter into a purchase power agreement with third party for generation from the solar array
- GRU isolated from liability
- Only pay for actual performance

# Potential Funding

<b>Approximate % of Capital Cost</b>	<b>Source</b>
Potential Partner	30%
GRU Rebate	15%
State and Federal Subsidies	30% *
3rd Party Financed or Other (Grants, etc.)	25%
Total	100%

\* GRU only eligible for 4%

# Still a Gap to Close

**(\$2009 \$ - No Additional Grants)**


- **Estimated PPA Rate** **\$350/MWh**
  - to 3rd Party Financing
  - O & M Expenses
  - 3<sup>rd</sup> Party Profits
- **Avoided Fuel Cost** **\$60/MWh**
- **Difference** **\$290/MWh**

# Funding Mechanisms

**(\$2009 \$ - No Additional Grants)**

<u>Mechanism</u>	<u>Customer Impact</u>
<b>Set up a Sinking Fund (Collected over 24 months)</b>	<b>\$0.70 per meter per month</b>
<b>Pass Through as Fuel Cost* (effect on Residential Bill - 950KWh)</b>	<b>\$0.05 per month</b>
<b>Add to Customer Charge (over 20 years)</b>	<b>\$0.10 per month</b>

# Other Funding Possibilities

- DOE - Reduction of Multiple Peak Feeder Loads Utilizing Integrated Distributed Resources (Award – early 2008)
- FDEP – Florida Renewable Energy Technologies Grants Program (Award - Feb. 2008)
- Customer Donations (similar to )

# Issues to Consider

- Timing of partner construction
- Grant proposals and timelines
- Planning/ permits and codes issues
- Competing requests for funding



# Conclusion

If the Commission wishes to proceed, select a funding mechanism and staff will negotiate and seek supplemental funding to minimize the cost to our customers