

Memorandum



Date: January 12, 2010

To: Honorable Chairperson and Members
Budget, Planning and Sustainability Committee

From: George M. Burgess
County Manager 

Subject: Requested Changes to the
Budget, Planning and Sustainability Committee
Agenda

Additions

3K SUB

100053 RESOLUTION AMENDING FY 2008-09 COUNTYWIDE GENERAL FUND AND UNINCORPORATED MUNICIPAL SERVICE AREA GENERAL FUND BUDGETS AND APPROVING REALLOCATION OF LINE ITEM APPROPRIATIONS FROM PERSONNEL SERVICES TO OTHER LINE ITEMS IN ACCORDANCE WITH SECTION 2-1796(D) OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA (SEE AGENDA ITEM NO. 1G4)
(Office of Strategic Business Management)

Scrivener's Errors

3C

093350 RESOLUTION ACCEPTING CANAL RIGHT-OF-WAY DEED FROM THE VILLAGE OF MIAMI SHORES, LOCATED IN SECTION 34, TOWNSHIP 52 SOUTH, RANGE 41 EAST (Department of Environmental Resources Management)

Note: *On handwritten page 3, the 10th line under the Now, Therefore section should state only state the acceptance by the Mayor and furthermore.*

3H

093421 RESOLUTION RATIFYING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE AWARD OF CONTRACTS UNDER FULL AND OPEN COMPETITION FOR THE PURCHASE OF GOODS AND SERVICES VALUED IN EXCESS OF \$100,000 AND UP TO \$1,000,000 EXECUTED DURING THE PERIOD OF JULY 1, 2009 THROUGH SEPTEMBER 30, 2009 (Procurement Management Department)

Note: *On handwritten page 7 for item number 15, the contract allocation, cumulative contract value, and department allocation should each be \$424,000. The total on handwritten page 8 is now \$5,869,437.26. On handwritten page 11, the total value of the 18 contracts awarded by DPM should reflect \$5,869,437.26, thereby changing the total of all awarded contracts to \$9,367,805.04.*

11 2010
Item **1E2**

Exhibit
Meeting

PFM Environmental Finance

Presentation to:
Miami-Dade County
Budget, Planning and Sustainability Committee

Public Financial Management
2121 Ponce De Leon Blvd.
Suite 510
Coral Gables, FL 33134
305 448-6992
305 448-7131 fax



January 12, 2010

Discussion Overview



- Executive Summary
- Current Environmental/Energy Market
 - Energy Trends
 - Recent Legislation
- Program Solutions
 - Potential Implementation Strategies
 - Composition of Team
 - Program Process
 - Financing and Legal Considerations

Executive Summary



➤ Program Goals

- Increase Energy Efficiency of Homes
- Provide homeowners with a lower-cost financing alternative
- Promote Miami-Dade County's "Green" Initiative

➤ Completely Optional Program

- Residents would "opt-in"

➤ Eliminate/Limit County Exposure

- Create a program that limits/eliminates the County's obligation
 - Security structure based solely on special assessment revenues
 - Issue Bonds through a third-party authority
 - Third-party administration of Program



ENERGY MARKET

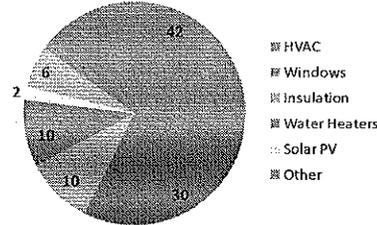


Historical Market Size for Energy Improvements



- In the United States in 2008, residential and commercial property owners spent \$100 billion¹ retrofitting their existing properties. 98% of retrofit money was spent on conventional products and 2% was spent on renewable energy.
- According to American Council for an Energy-Efficient Economy, approximately \$36 billion² was spent on energy efficiency Eligible Improvements in 2008.
- Approximately, only 36% of property owners choose to purchase energy efficient products.

Billions of Dollars Spent Retrofitting Buildings - 2008



¹ Estimate is based on data compiled from U.S. Industry Studies performed by Freedonia for HVAC, Insulation, and Windows and by market studies performed by Kema for Water Heaters. Solar PV estimates based Solarbuzz June 2009 report. We estimate that approximately \$11 billion was spent in California, where 90% was spent on conventional products and 10% was spent on solar PV systems.

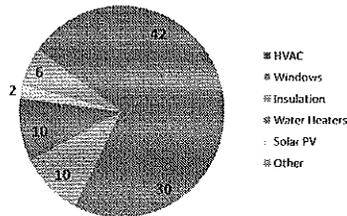
² Report published in May 2008 by the American Council for an Energy-Efficient Economy. "The Size of the U.S. Energy Efficiency Market: Generating a More Complete Picture."



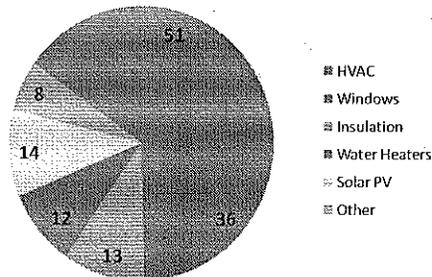
Market is Large and Diversified Projected to grow to \$134 billion by 2014¹



2008 (billions of \$)



2014 (billions of \$)



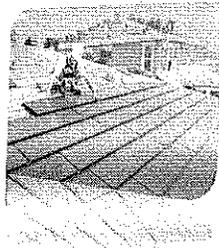
¹ Forecast is based on data compiled from U.S. Industry Studies performed by Freedonia for HVAC, Insulation, and Windows and by market studies performed by Kema for Water Heaters. Solar PV estimates are based on the Solarbuzz June 2009 report.



Local and State Governments are under increasing mandates to promote Green Energy and to reduce Green House Gases (GHG).



- Florida has not enacted any specific legislation to date, but others have...
 - California's AB 32 directs the California Air Resources Board to develop a strategy to reduce GHG in California to 1990 levels by 2020.
 - California Solar Initiative (CSI), calls for one million solar roofs. Directs utilities to provide approximately \$3.35 billion in incentives to homeowners over 11 years to encourage solar panel installation.
 - Colorado has secured the first solar assessment bonds.
 - Texas has enacted voluntary solar assessment authorization and bonding authority.



Property Assessed Clean Energy Financing (PACE Financing) is going national



- Since 2008, 16 states have passed property assessed clean energy ("PACE") legislation allowing cities and counties to loan money to homeowners and businesses to finance renewable energy and energy efficiency improvements
- Five PACE Programs have been launched since new legislation was introduced in 2008.



State Legislation
■ Passed State Legislation
■ Existing Legislation Enables Assessment Financing

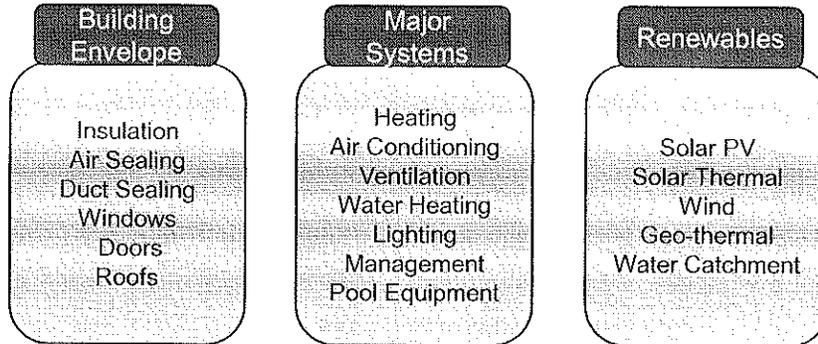


What's Financeable?



Eligible Projects

- Any Improvement which is permanently attached to the property to make the property more energy efficient or produce clean energy. Does not include appliances.



8

Federal Tax Credits



- Information about Federal and Financial incentives related to energy efficiency projects can be found at the following website:

<http://www.dsireusa.org/incentives/index.cfm?EE=1&RE=1&SPV=0&ST=0&searchtype=PTFAuth&sh=1>

Residential Energy Efficiency Tax Credit

Last DSIRE Review: 02/18/2009

Incentive Type: Personal Tax Credit

State: Federal

Eligible Efficiency Technologies: Water Heaters, Furnaces, Boilers, Heat pumps, Air conditioners, Building Insulation, Windows, Doors, Roofs, Circulating fans used in a qualifying furnace

Eligible Renewable Technologies: Biomass, Stoves that use qualified biomass fuel

Applicable Sectors: Residential

Amount: 30%

Maximum Incentive: Aggregate amount of credit for all technologies placed in service in 2008 and 2010 combined is limited to \$1,500

Equipment/Installation Requirements: Equipment must be new and in compliance with all applicable performance and safety standards as described in tax code

Web Site: <http://www.energystar.gov/taxcredits>

Authority 1: 26 USC § 25C

Date Enacted: 08/2005 (subsequently amended)

Date Effective: 1/1/2006

Expiration Date: 12/31/2010



9

Federal Tax Credits Continued...



Residential Renewable Energy Tax Credit

Lead DSIRE Review: 02/19/2008

Incentive Type: Personal Tax Credit

State: Federal

Eligible Renewable/Other: Solar Water Heat, Photovoltaics, Wind, Fuel Cells, Geothermal Heat Pumps,
Technologies: Other Solar Electric Technologies

Applicable Sectors: Residential

Amount: 30%

Maximum Incentive: Solar-electric systems placed in service before 1/1/2009: \$2,000
Solar-electric systems placed in service after 12/31/2008: no maximum
Solar water heaters placed in service before 1/1/2009: \$2,000
Solar water heaters placed in service after 12/31/2008: no maximum
Wind turbines placed in service in 2009: \$4,000
Wind turbines placed in service after 12/31/2008: no maximum
Geothermal heat pumps placed in service in 2009: \$2,000
Geothermal heat pumps placed in service after 12/31/2008: no maximum
Fuel cells: \$500 per 0.5 kW

Carryover Provisions: Excess credit may be carried forward to succeeding tax year

Eligible System Size: Fuel cells: 0.5 kW minimum

Equipment/Installation: Solar water heating property must be certified by SRCC or by comparable
Requirements: entity endorsed by the state in which the system is installed. At least half the
energy used to heat the dwelling's water must be from solar. Geothermal heat
pumps must meet federal Energy Star requirements. Fuel cells must have
electricity-only generation efficiency greater than 30%.

Authority 1: 26 USC § 25D

Date Enacted: 8/8/2005 (subsequently amended)

Date Effective: 1/1/2006

Expiration Date: 12/31/2015

Authority 2: IRS Form 592E & Instructions; Residential Energy Credits



PROGRAM SOLUTIONS



Introducing PFM's Energy Financing Program



- In other states, PFM has developed a turn key team and program ready for implementation that allows homeowners to finance the cost of energy efficiency improvements to their homes using taxable assessments bonds issued by a municipality. The bonds are secured by annual assessments on the homeowner's property tax bill.

- Homeowner Benefits:
 - A means to pay for energy efficiency improvements with no upfront cost
 - A loan is used to finance the improvements without the normal credit qualification process
 - A long term payback that stays with the property in the event of a change in ownership
 - Completely voluntary to participate
 - Helps reduce the affects of rising energy costs
 - Federal Tax Credits Available

- County Benefits
 - A means to implement energy conservation initiatives
 - Accelerates movement toward energy independence & reduces GHG emissions
 - A stimulus for the local economy
 - Limited/No General Fund support

PFM's Comprehensive Approach



- Soup-to-Nuts Service Offering, Including:
 - ✓ Program Design
 - ✓ Marketing
 - ✓ Administration & Support

- Coordinated Approach to Working With:
 - ✓ Installers
 - ✓ Utilities
 - ✓ Homeowners

- Web-based Application and Program Management System

- Team Acts as Extensions of County Staff

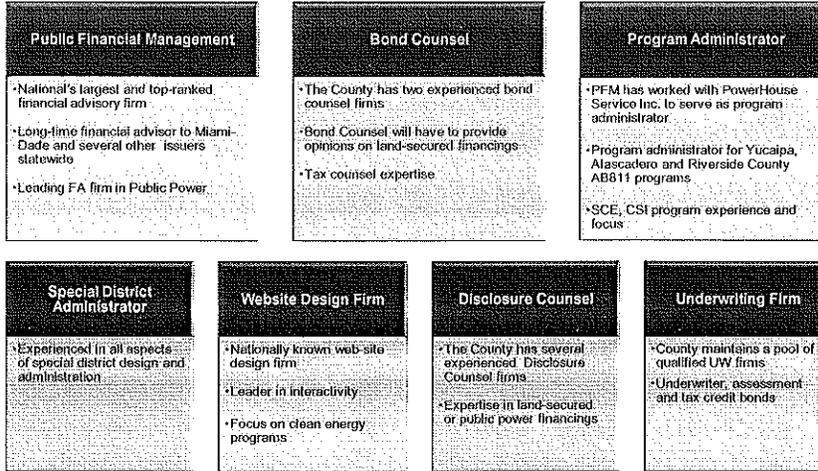
- Team Offers:
 - ✓ Energy Audits
 - ✓ Federal Program Assistance
 - ✓ Comprehensive Marketing



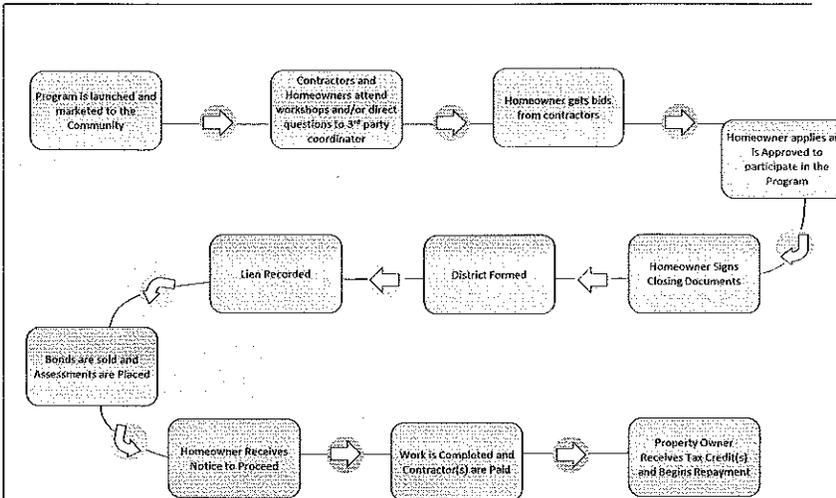
Composition of the Environmental Finance Team



- The following is a description of the firms that would likely be involved in developing such a program.



Sample Application and Financing Process



Preliminary Look at Program Economics



- Typical program participant would *already* be in the market to replace an eligible project
 - Replacing/Retrofitting projects that are functioning property would likely not result in savings.
- As such, sample program results on the following pages only illustrate the incremental costs associated with replacing an obsolete system with an energy efficient system and resulting savings
- Figures are preliminary



| 16

Preliminary Look at Costs



Category Examples	Energy Efficient		
	Traditional System Costs	Incremental Costs ¹	Total Loan ²
Heating and Air-conditioner	\$ 2,857	\$ 1,051	\$ 3,908
Windows	\$ 16,686	\$ 3,368	\$ 20,054
Insulation	\$ -	\$ 2,421	\$ 2,421
Water Heater	\$ 870	\$ 275	\$ 1,145
Solar photovoltaics (PV)	\$ -	\$ 29,770	\$ 29,770

¹ Incremental costs are the costs to replace existing product with energy efficient products (as opposed to a traditional/standard system) as defined by Energy Star. For example, a property owner can choose to purchase standard HVAC systems, single pane windows, or standard water heaters. A property owner can upgrade to purchase a more efficient system for each of these product categories. The incremental costs take into account the additional cost to upgrade, plus the program fees and related reserves.

² Total Loan is equal to the Incremental EE Cost plus the base cost of the traditional product. Insulation and solar PV systems are additive, thus all costs are incremental.



| 17

Preliminary Look at Potential Results



Category Examples	First Year		Annual	Incremental	Estimated
	Tax Credit		Energy/Tax Credit Savings ¹	Annual Property tax Assessment ²	Annual Savings ³
Heating and Air-conditioner	\$ 1,500	\$	393	\$ (67)	\$ 326
Windows	\$ 1,500	\$	252	\$ (216)	\$ 36
Insulation	\$ 1,500	\$	308	\$ (155)	\$ 152
Water Heater	\$ 300	\$	86	\$ (18)	\$ 69
Solar photovoltaics (PV)	\$ 7,800	\$	1,341	\$ (1,911)	\$ (571)

¹ Annual Energy Savings is based on Energy Star and the Lawrence Berkeley National Laboratory data. All results include historical price increases of energy based on the 35 year average provided by the US Department of Energy. Incremental Annual Energy Savings also include federal tax credits amortized over 15 years.

² Includes only incremental cost for EE system, installation costs and PACE Program Fees. Incremental Annual Property Tax Assessment includes the tax deduction on interest portion of annual payments. Assessments are amortized over 15 years at a 7.33% interest rate.

³ Savings are based solely on the incremental Cost (including program fees) associated with installing an EE system as opposed to a traditional system.



18

Issues to Consider



- No Direct PACE Legislation: Florida has existing statutory provisions for the creation of special taxing districts, which are used frequently for road, water and sewer improvements. However, existing provisions do not contemplate voluntary assessments on a subset of property owners who opt into the district.
- Special taxing districts have traditionally been used to finance public improvements that provide a district wide benefit. The improvements being considered under PACE are located on private property. However, the energy conservation nature of the projects would seem to serve a public benefit.
- An effective financing program would require the assessment to be secured on parity with the homeowners property tax payments and thus would have priority over other mortgages/liens on the property. As a result, it is important to establish parameters related to size of the loan permitted relative the overall property value.
- These are but a few of the myriad of legal and financial issues that must be worked through during the implement of an Energy Assessment Program.



19