



# Renewables and Sector Partnerships

Leveraging Incentives to Work for You



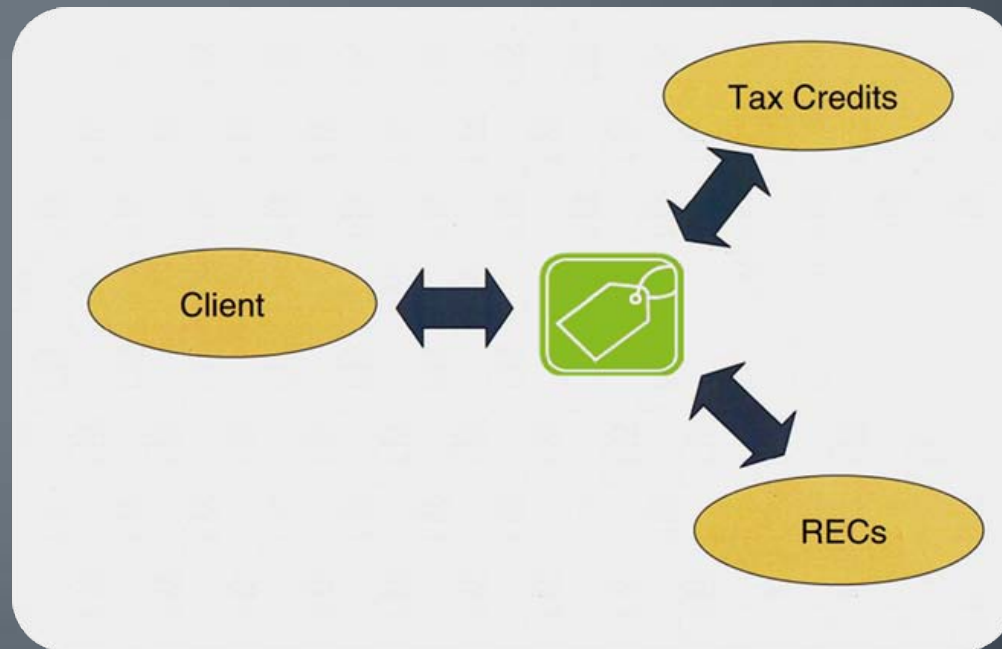
# Who?

- A third party financier is a turnkey facilitator that provides resources in engineering, construction and financing to implement solar on a structure they don't own
- Third Party Financing is a vehicle that utilizes rooftop space to secure private sector financing and incentives to install solar
- Look for excellence, experience, recommendations (RFQ)



# What?

- Private Sector captures depreciation and 30% federal tax credit, along with other incentives



- Photovoltaic Purchase Agreement can be a good solution for Municipal, NPOs, and Businesses to Reduce Upfront Costs

# When?



- January 2010: RFQ Coordination meeting with Convention Center & Utility Company
- February 2010: RFQ issued
- April 2010: FLS Energy chosen, negotiations start
- .....?
- July 2011: Council Approves Contract
- October 2011: Notice to Proceed
- January 2012: Design Complete
- March 2012: Installation Began
- April 2012: Project Complete





# Where?

- 363 Solar Photovoltaic Panels on the Convention Center Roof at Worlds Fair Park (1982: “Energy Turns the World”)
- Generates 118,240 kW hours/ yr.
- Saves up to \$685,000 over 40 years
- Complements Efficiency Upgrades: LEED



# Online:

SUNNY PORTAL

US-English



Logout

Knoxville Convention Ce...

Plant Profile

Energy and Power

Annual Comparison

Visualization

User Info/Logout

Plant overview

Page Configuration

Help

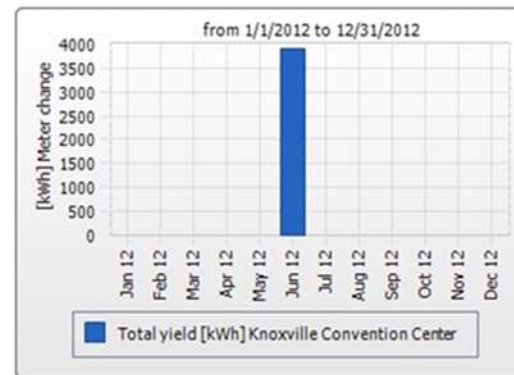
Date:  
6/20/2012

Energy:  
31,901.01 kWh

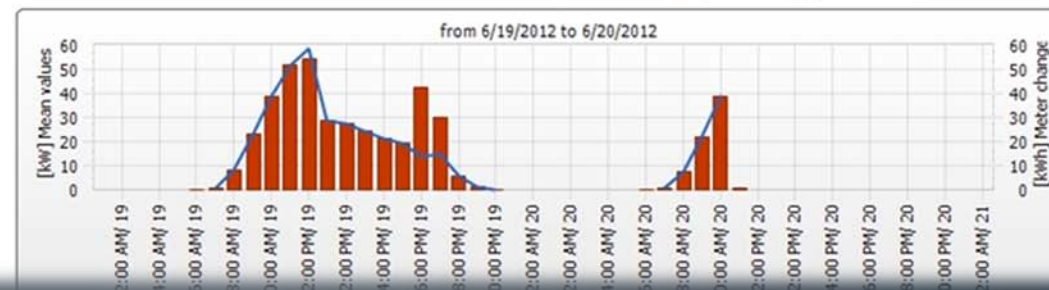


CO2 avoided:  
22,330.71 kg

Reimbursement:  
€ 13,720.62



1/1/2012 - 12/31/2012



# Why?

- Reduces Upfront Investment
- Increases System Size
- Reduces Payback Time
- Minimizes Risk
- Maintenance Included
- Insurance Costs Covered
- Option to own after year 7



# Why?

- Reduces power bills
- Cost-effective investment
- Supports local workforce
- Earns LEED Points
- Emits no pollution
- Improved energy security
- Public relations





# How?

- Coordination of impacted City Departments:
  - Finance: getting a comfort level with payback period, lease term, valuation process, purchase agreement, incentive funneling
  - Legal: ended up with a SPPA, lease, purchase agreement, incentive contract, interconnection agreement
- Regulation Compliance for Funding Sources
- Content and Timing of Public Message



# Value Added



## Direct Purchase

- \$250,000 grant
- 50 kW PV system
- 65,760 kWh/ yr.
- 47 tons CO<sub>2</sub> avoided
- \$15,000/ yr. GPP cr.
- 17\*- 30 year payback
- \$124,500 revenue 25 yrs.
- \$349,500 revenue 40 yrs.

## PV Purchase Agreement

- \$250,000 grant
- 90 kW PV system
- 118,240 kWh/ yr.
- 85 tons CO<sub>2</sub> avoided
- \$27,400/ yr. GPP cr.
- 15\*-19 year payback
- \$274,000 revenue 25 yrs.
- \$685,000 revenue 40 yrs.

# Non-monetary Message

- Offsets energy equivalent of 8 homes
- Removes 85 Tons CO<sup>2</sup> per Year
- Good Public Relations for Knoxville
- Shows Community and State Leadership
- Leveraging Solar America Cities to develop model
- Provides Educational Aspects for Convention Guests



# Lessons Learned

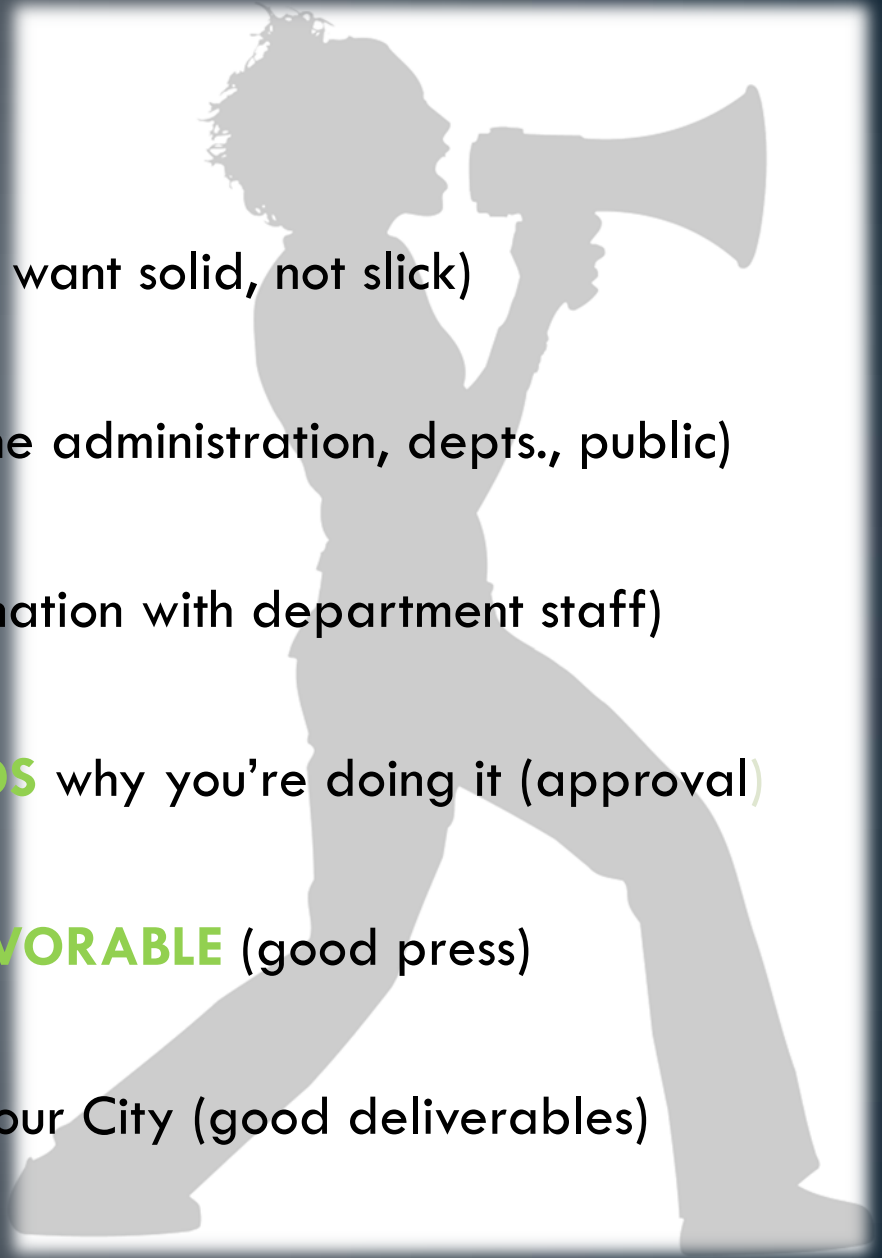


- Check with your Roof Company to make sure you don't void the warranty
- Check with your Public Building Authority to make sure they aren't planning to replace the roof
- Over-communicate with your occupants so they trust the process
- Be the squeaky wheel to the press so they get the facts straight
- Know you can't win everyone
- Flaunt energy savings so it's clear it's not just a feel-good project
- Make the connection between economic growth and renewable energy



# Take Away

- **KNOW** the math intimately (you want solid, not slick)
- But **EXPLAIN** it in bite size (to the administration, depts., public)
- So your people **OWN** it (coordination with department staff)
- And your Council **UNDERSTANDS** why you're doing it (approval)
- And your media coverage is **FAVORABLE** (good press)
- And your company **RESPECTS** your City (good deliverables)





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CITY HALL

CITY EMPLOYMENT

ONLINE SERVICES

BUSINESS

RESIDENTS

VISITORS

Susanna Sutherland, Manager 865.215.4430

[ssutherland@cityofknoxville.org](mailto:ssutherland@cityofknoxville.org)

[www.cityofknoxville.org/sustainability](http://www.cityofknoxville.org/sustainability)



Jake Tisinger, Coordinator 865.215.2065

[jtisinger@cityofknoxville.org](mailto:jtisinger@cityofknoxville.org)

[www.solarknoxville.org](http://www.solarknoxville.org)

