

# EFFICIENCY CITIES NETWORK

June 9, 2009

3pm EDT

Private Financing

**Moderators:**

Joel Rogers, Director of Center on Wisconsin Strategy (COWS)

Satya Rhodes-Conway, Administrator of Efficiency Cities Network (ECN)

# Agenda

- Welcome and intro (5 min)
- Presenters (30 min)
  - Aaron Berg, Blue Tree Strategies
  - Jonathan Naimon, Light Green Advisors
  - David Brown, C Change Investments
- Questions and discussion (50 min)
- Next call and other items (5 min)



SHOREBANK ENTERPRISE CASCADIA  
Let's change the world.®

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- **Regional** (WA and OR) Community Development Finance Institution. -**CDFI**
- **Not an FDIC institution.** This gives needed flexibility.
- **Parent company is ShoreBank Corp.** in Chicago, an FDIC bank.
- **Strong reputation** as risk managers, innovators and capital aggregators.



# The Financial Model

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- **City of Portland** is contributing 20% of their EECBG dollars to create a **\$2.5MM “equity” fund**.
- Designed for **leverage** and **scalability**.
- **Loan Loss Reserve** of 10%
- Will leverage with **State funding** and **senior debt**.
- The model places value on going “deeper” with retrofits with **sliding scale rates/terms**.
- **Lower carbon emissions** and **less energy** consumption are valuable so we reward it.
- PCEF also places value on a **single delivery** loan product that serves **low-moderate income participants** with most **affordable** rates/terms.
- **Utility Bill payment history** is key driver of credit rating for PCEF customers/borrowers



# Key Attributes of Partners

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- **ShoreBank** – risk manager and capital aggregator.
- **Utilities** – only asked and compensated to be a “conduit” for repayment. Very little risk for them.
- **Energy Advocate** – must be knowledgeable on retrofit process and financial product. “full-service” delivery for customer starts here.
- **Contractors** – need skilled labor and technical expertise. Workforce training issue.



# Blue Tree Strategies

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## EECBG Fund Development

Aaron Berg

[berg@bluetreestrategies.com](mailto:berg@bluetreestrategies.com)

503-758-6579



# Increasing Equity Investment in Building Energy Efficiency

**EFFICIENCY CITIES NETWORK  
JUNE 9, 2009**

Jonathan Naimon  
Light Green Advisors  
800 Fifth Avenue, Suite 4100  
Seattle, WA 98104  
206.547.8645 (direct)  
206.505.5815 (fax)  
[jnaimon@lightgreen.com](mailto:jnaimon@lightgreen.com) (email)

# ECN Agenda

- Light Green Advisors background
- Low Interest loans and energy efficiency
- Can third party owned solar success provide a model?
  - Advantages of private equity relative to public or private debt
- Differences between energy efficiency and solar
- How would a private sector energy efficiency fund look?
- Requirements for private sector energy investment
- The stimulus and support for new models
  - Limitations on revolving loan programs
  - \$10b stimulus too small for \$ 1 trillion EE investment required
  - need private capital for other 99%!
- Public Policy issues
  - Procurement by public entities
  - Aggregation by public entities
- Investment issues
  - Asset class (private equity, infrastructure, environmental sustainability)
  - Chicken and egg (how to do something new)
  - Pilot stage investments



# Light Green Advisors background

- Asset management
  - CalSTRS Sustainable Investment Manager program
  - California Green Wave Initiative
- Advisory
  - Sun Edison
  - Progressive Policy Institute
  - Carbon Buyers
  - Apollo Alliance

# Low Interest Loans and Energy Efficiency

- Subsidized low interest loans have been available for energy efficiency from utilities, banks, and governments for more than a generation (2008 was the 30 year anniversary of NECPA)
- Utilities with few exceptions (e.g., SMUD) have not historically been very successful at marketing financing energy efficiency even with subsidized interest and well qualified staff
  - Low interest loans pioneered in 1970s
  - Less than 1% penetration in US according to one study
  - Utilities have hired third parties to market loans with different financial incentives
  - Challenges even with 0% loans due to “energy’s not my focus” at commercial and residential buildings
- Loan obligations for energy reduce capital availability for core functions of companies, homeowners, and nonprofits such as hospitals and community colleges
  - Many institutions that could benefit have loan covenants that restrict their ability to access debt finance
  - Cash flow benefits offset by time to manage project and requirements to share information, space, disruptions
- Macro picture: Banks are reducing the size of their debt (deleveraging) throughout the world
  - Banks in USA are cutting lending to core customers today
  - Traditional businesses continue to need debt
  - Regulatory programs will require banks hold more capital (less lending) to increase safety
- Spending \$ on new programs as banks cut staff and increase capital levels
  - Banks that have scale don’t have expertise and vice versa
- Consumers are wisely reducing debt across the US now after binging on debt for the last 10 years.
  - We should not encourage more consumer debt ; small companies are similarly reducing debt level

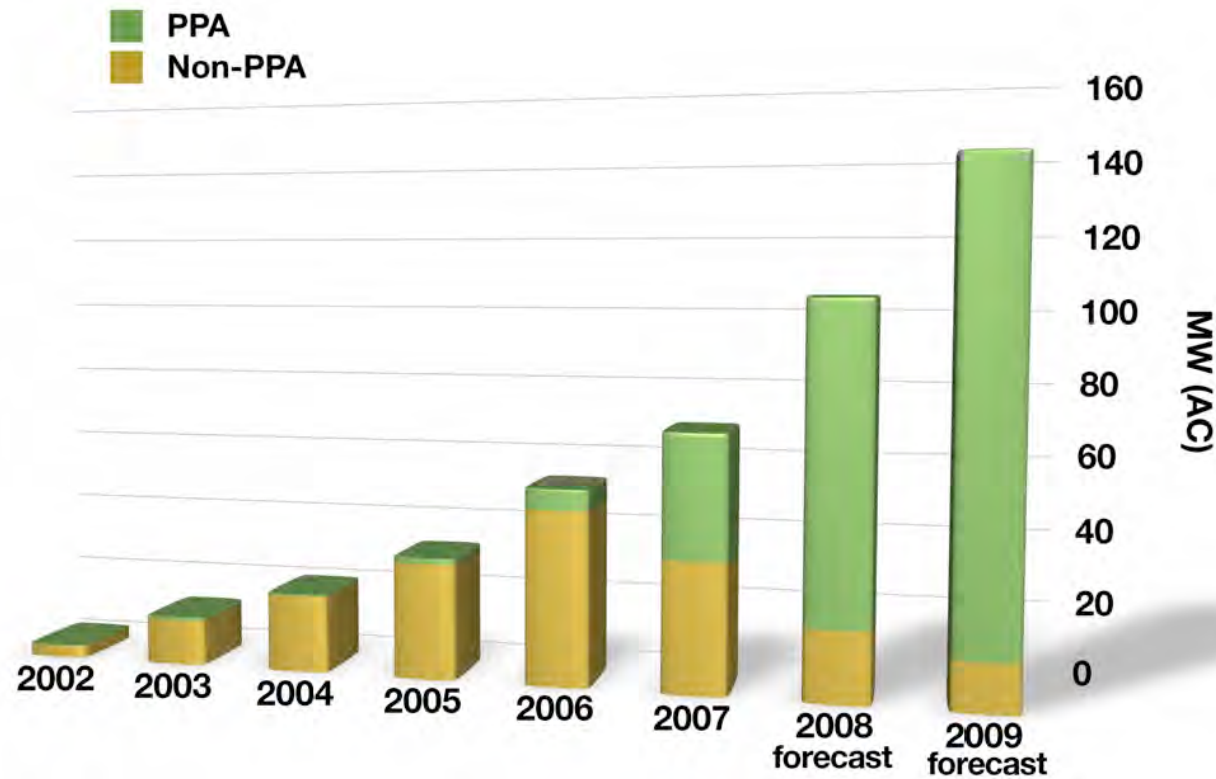
# Can third party owned solar success provide a model?

- New market entrants (e.g., Sun Edison) pioneered the third party finance model that powered rapid growth of solar in US 2004 - 2009 – not the larger technology or service companies
- Growth of solar in US was financed through combination of public investment subsidies (state rebates, environmental markets (RECs) and both federal and state tax credits) and private capital
- Public sector investment in the form of cash rebates, renewable energy credits, renewable energy portfolio standards, etc. were vital but public management and utility involvement was not vital
- Dynamic growth was led by profit maximizing private sector system integrators following public sector signals (e.g., rebates and tax credits) regarding solar
  - *The Obama Administration has signaled that energy efficiency is now a vital component of the US's clean energy strategy going forward*
  - *Third party ownership model broke the link between the building owner or tenant and energy system ownership*
  - *Third party model links energy expertise and capital to energy investment*
    - *Energy is not a secondary focus for these energy companies like it is for homeowners or commercial real estate*
    - *The principle of linking energy expertise, financing, and control probably applies to energy efficiency even more than to solar due to the greater number of variables that need to be managed*

# Growth of Power Purchase Agreement (PPA) Third party Owned Solar Photovoltaic Installations in US 2002-2009

Source: LBL 2009

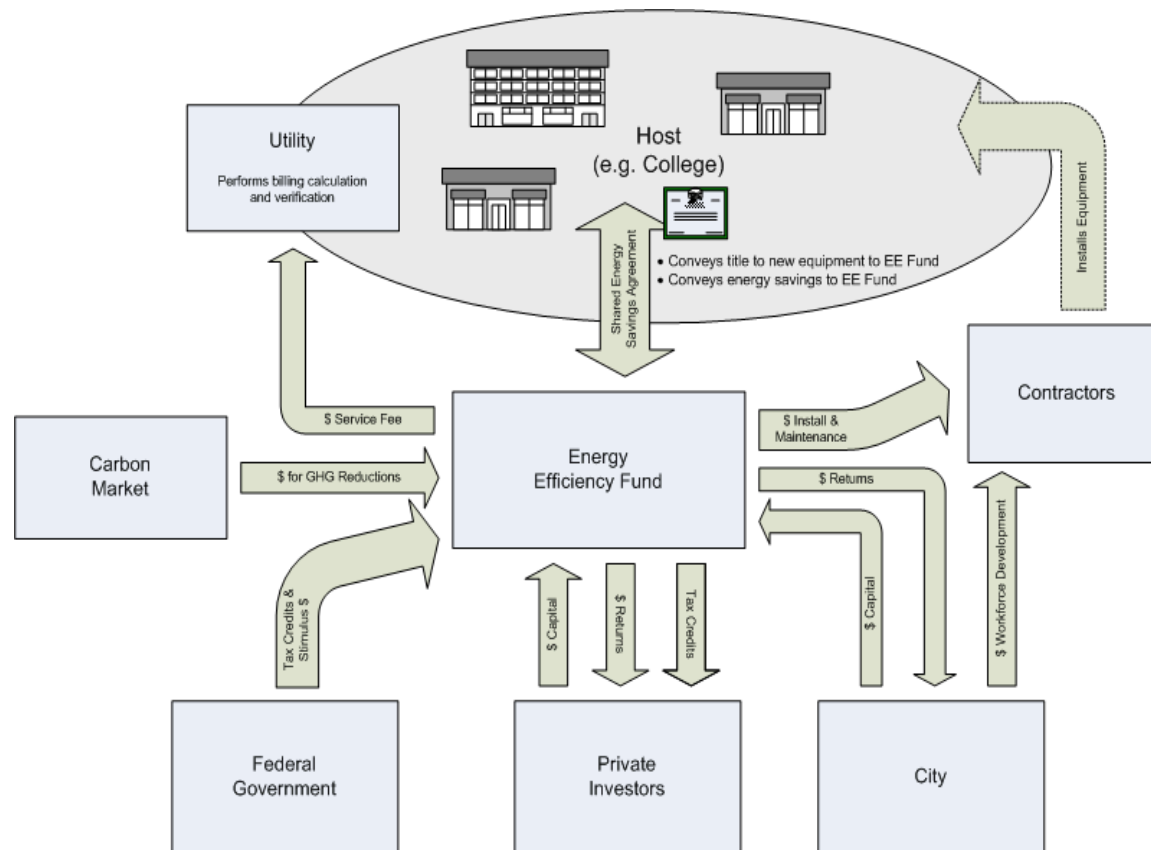
## US Non-Residential PV Installations



# Advantages of Equity Ownership Over Debt Centered Models

- Energy is #1 focus of equity investors in energy efficiency funds
  - Energy is at best a #2 focus for most owners
  - Third party ownership and management relieves building owners and tenants of technical decision-making responsibility
- Equity managers have vested interest in success of systems integration and operation
  - Lenders have vested interest in origination and recovery of capital but limited upside from operations
  - Creation of secondary market for EE loans reduces interest of lenders in servicing revenue
- Equity investors can utilize tax credits and create economies of scale for tapping other theoretical benefits such as carbon and grid capacity
  - German retrofit program involved partnership of public and private entities
- Equity investors can extend reach of stimulus package funds substantially (>2x)
  - For example, the total project value supported by low interest energy efficiency loans can be doubled by funds that use 50% debt
  - Successful private sector funds will attract more private money after the stimulus funds are gone
  - Building energy efficiency market in the US will require new investment from private sector

# How would a private sector energy efficiency fund look?

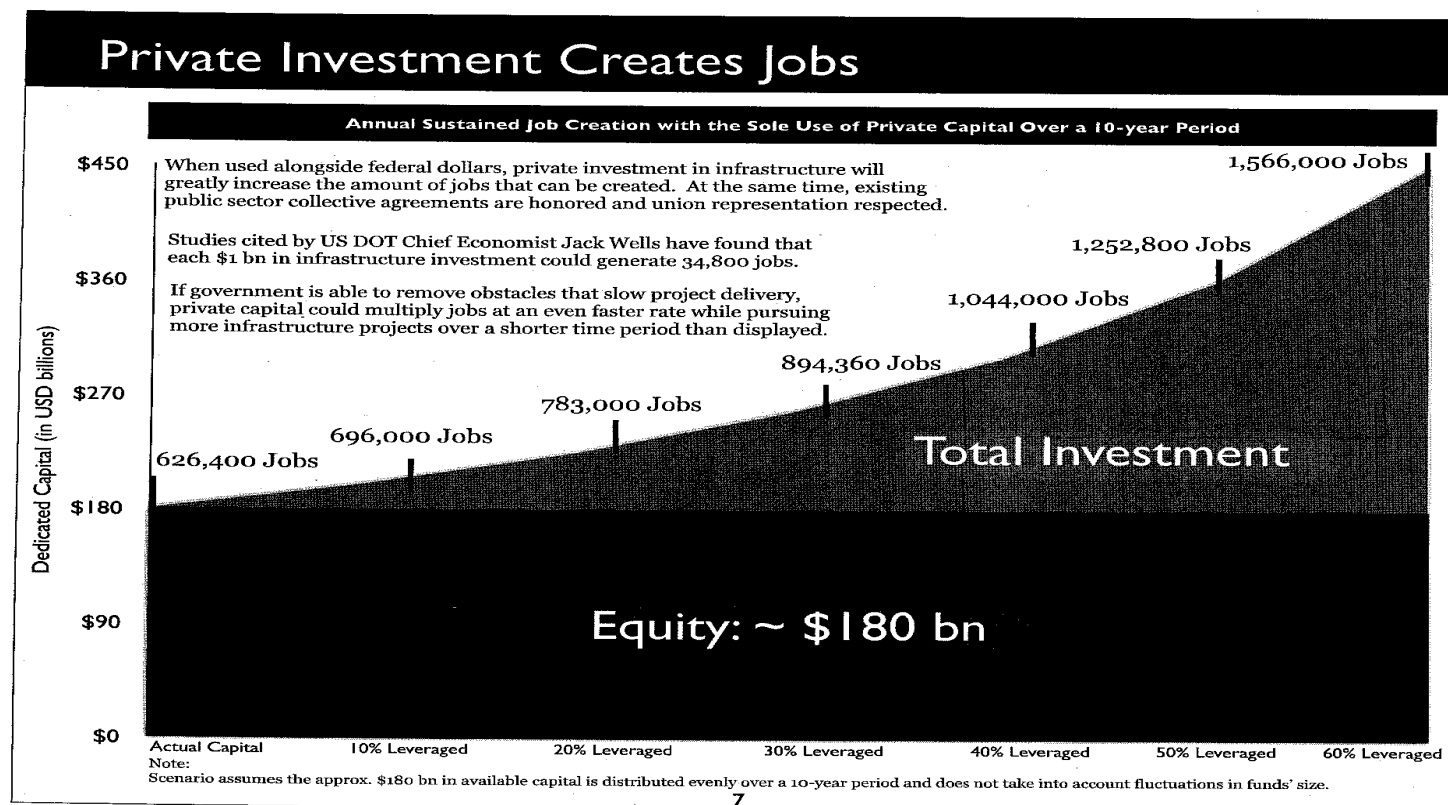


Source: Light Green Advisors 2009

# Private sector energy efficiency investment requirements

- Fund architecture allows for both private and public funds to be invested
- Capacity to take tax credits, regulatory markets (e.g., capacity, renewable energy credit, and carbon) and utility rebates
  - No reason to expect individual homeowners to do this
- Fund to bundle market services and technology together
  - Responsibility for making smart technical choices (systems integration)
- Capacity to generate the profits that attract new investment
  - Low interest means low profits; private equity investors seek profitable (20%+) investments
- Capacity to drive down transaction costs over time through scale
  - Public sector support for development of new models and documents
- Capacity to take on higher risk projects (e.g., commercial real estate?)
  - Public sector can provide partial default guarantees, subsidized project debt to both bank and non bank entities
  - Private sector entities that take on higher risk projects will earn higher returns

# Impact of Leverage on Estimates of Jobs Funded by Private Equity Transport Infrastructure Funds



Source: Kearsarge Global Advisors



# Principles for Public Sector Support of Private Sector Investment

- Open architecture
  - Transferable benefits (e.g. cash rebates, tax credits, subsidized loans) to system integrators to maximize economics
  - Open to new services models (e.g., don't specify ESCOs only)
  - Set clear rules but open as to who provides service
- Investment in dedicated funds to achieve public goals
  - Allocations from public funds to energy efficiency partnerships
  - View building energy efficiency as a private equity investment like centralized energy infrastructure
  - Recognition that public capital, ESCO, bank and utility models have their place but not are not sufficient to expand energy efficiency exponentially in the US

# Alternative roles for Cities

- Manage energy efficiency projects internally
  - Raise capital, hire new staff, compete with private and non-profit sectors
  - May not be wise choice if tax revenues are down
- Subsidize workforce development and energy efficiency through targeted grants
  - Performance metrics preferable to general support
  - E.g., per kW saved, per ton CO2 equivalent, per FTE equivalent
- Provide low interest debt from stimulus package and other funds to complement equity-oriented energy efficiency funds
- Provide equity investment with capped return (e.g., 3% over cost of capital)
  - jumpstart mixed capital funds
  - Provide support for maintaining core activities (e.g., libraries, prisons, police, etc.)
- Aggregator of building energy efficiency projects at individual home level
  - Use private sector entities to deliver services in aggregation area

# Conclusion

- Thank you very much for your interest.
  - We look forward to working with cities to help maximize the value of public and private US investment in energy efficiency

# Contact Information

ECN:

ADMINISTRATOR: [ecn@efficiencycities.us](mailto:ecn@efficiencycities.us)

LISTSERV: [ecnmembers@efficiencycities.us](mailto:ecnmembers@efficiencycities.us)

WEBSITE: [www.efficiencycities.us](http://www.efficiencycities.us)

Aaron Berg

[berg@bluetreestrategies.com](mailto:berg@bluetreestrategies.com)

Jonathan Naimon

[jnaimon@lightgreen.com](mailto:jnaimon@lightgreen.com)

David Brown

[brown@cchangeinvestments.com](mailto:brown@cchangeinvestments.com)