

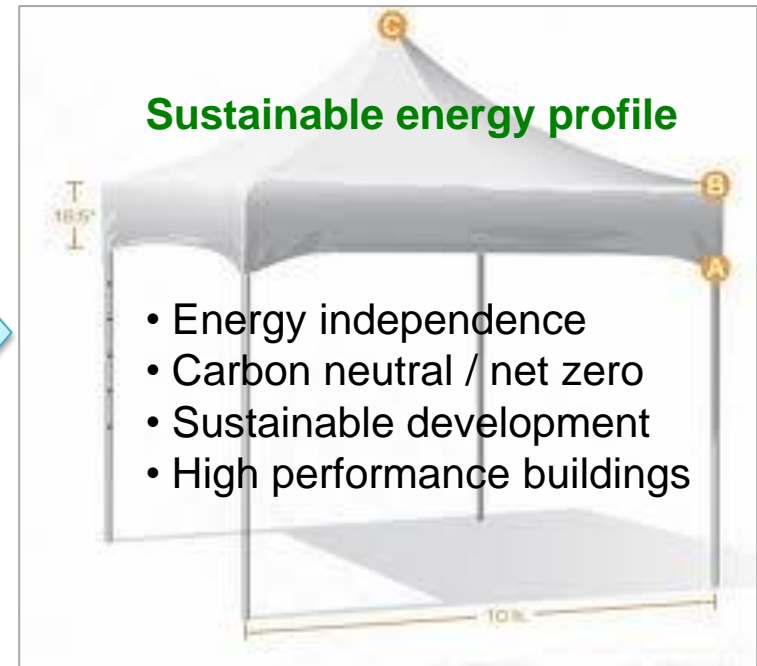
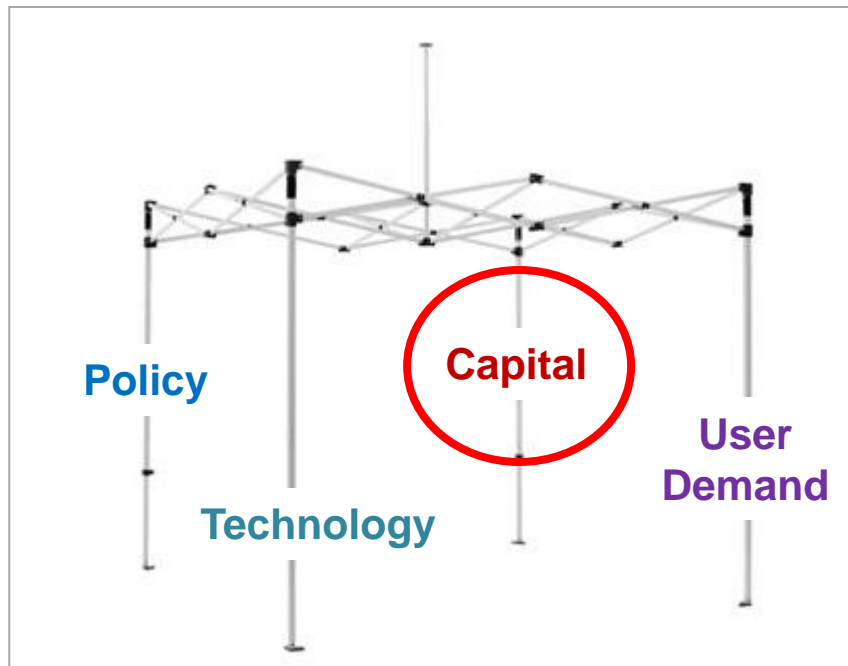
Property Assessed Clean Energy

**Presentation to the MWCOG
Climate, Energy, Environment Policy Committee**

Presented by Nina Albert, District Department of the Environment

November 16, 2011

Concurrent Maturation of Market Drivers



EE Financing Models



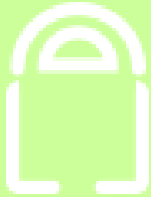
| Model | Pros | Cons |
|----------------------------|--|---|
| ESA and MESA | <ul style="list-style-type: none"> • Off-balance sheet • May be treated as a lease | <ul style="list-style-type: none"> • Need to link to public support |
| Revolving Loan Fund | <ul style="list-style-type: none"> • Scalable – can be leveraged up and dollars recycled | <ul style="list-style-type: none"> • Requires seed capital • Limited to amount of seed funds • Requires negotiation with lenders • Requires deal-by-deal underwriting |
| PACE | <ul style="list-style-type: none"> • Market traction • Attractive rates | <ul style="list-style-type: none"> • Government funded to date • Scalability not proven • Additional capitalized expenses up to 8% |
| On-Utility Bill | <ul style="list-style-type: none"> • Low rates • Streamlined experience | <ul style="list-style-type: none"> • PSC approval slow; utility support required • Capital market may not value shut-off rights • Lack of takeout options • Utility will want rate recovery for costs |

*PPAs not included, as they most commonly apply to RE



PACE

City creates type of land-secured financing district or similar legal mechanism (a special assessment district)



Property owners voluntarily sign-up for financing and make energy improvements



Proceeds from revenue bond or other financing provided to property owner to pay for energy project



Property owner pays assessment through property tax bill (up to 20 years)



Unlike traditional land-secured financing, PACE programs are 100% voluntary. Property owner do not pay additional assessments or taxes unless they choose to have work done on their property. Program participants pay only for the cost of their project (including interest) and nominal fees to administer the program.

Existing Commercial PACE Programs



| Program | # of Projects | Funding Total | Interest Rate | Term | Funding Source | Finance Structure |
|------------------------|---------------|----------------------|----------------|----------------|--|--------------------------|
| Sonoma County, CA | 37 | \$7.27M | 7.00% | Up to 20 years | County Treasury | Warehoused |
| Boulder County, CO | 29 | \$1.52M | 1.04-2.29% | 5-10 years | Moral Obligation Bond with QECB | Pooled bond |
| Palm Desert, CA | 3 | \$575k | 7.00% | Up to 20 years | City backed funds | Warehoused |
| Placer County, CA | 2 | \$319k | 7.25% | Up to 20 years | County Treasury investment - \$33MM committed, additional \$22MM available | Warehoused |
| CaliforniaFIRST | 0 | \$4M in applications | N/a | N/a | Privately funded, administered thru Pacific Housing Finance Agency. \$95M bonding authority. | Warehoused? |
| Los Angeles County, CA | 0 | | | | | |
| San Francisco, CA | 0 | \$100M | Owner arranged | Up to 20 years | Conduit/revenue bonds | Owner arranged |
| Washington DC | 0 | \$250M | 7-9% | Up to 20 years | Conduit/revenue bonds | Warehoused + pooled bond |

Start-Up Challenges

- Unproven model
 - 71 commercial loans nationwide totaling \$9.7 million
- 50% of applications declined due to lender consent issues
- Existing programs have used government capital (i.e. ARRA) or credit to provide financing
- Future programs must rely primarily on private capital complemented by federal grant money for credit enhancements
- No owner-arranged programs or closings to date, although emerging LA and SF programs are to be launched

EE Challenges



- **Owner Perspective**

- Owners prioritize other investments → low demand for EE
- Split incentives between landlord and tenant
- Multiple types of improvements needed
- Guarantees required to assure enduring energy savings
- EM&V and continual commissioning costs

- **Capital Provider Perspective**

- Lack of common underwriting standards, structures
- Limited track record of owner performance
- Fluctuations in renewable energy stability
- Emerging technology, systems, contractors, M&V standards
- To compensate for risk, requires guarantees or credit enhancement



DC is Moving Forward



- Thought process
 - Legislative authority (city/state)
 - Market assessment/market demand
 - Partnership potential
 - Political support
- Long-term imperatives
 - Economic competitiveness and job growth
 - Reduce GHG emissions and preserve natural resources
- Program goals
 - Prove market demand across commercial and multi-family sectors
 - Develop sound financial structure(s)
 - Establish viability of commercial PACE to maximize penetration and scale
 - Generate acceptable ROI on energy investments
 - Demonstrate viability to capital markets

PACE Program Options



| Funding | Issuance | Takeout | Challenges | Rationale |
|--|-----------------------|--------------|---|--|
| Public (GO, moral, revenue) | Pooled | N/A | <ul style="list-style-type: none"> • Municipal debt cap • Lack of credit support • Projects queue for funding • Blended credits with one rate | <ul style="list-style-type: none"> • Limited public funds |
| | Warehouse | N/A | <ul style="list-style-type: none"> • Municipal debt cap • Lack of credit support • Requires take-out | <ul style="list-style-type: none"> • Limited public funds |
| | Micro | N/A | <ul style="list-style-type: none"> • Municipal debt cap • Lack of credit support • Bonds issued for each project drive high transaction costs | <ul style="list-style-type: none"> • Limited public funds |
| Private (owner arranged) | Single institution | None | <ul style="list-style-type: none"> • Inventory of portfolio properties • Pricing/property owner appetite • Sales cycle 90+ days | |
| | | Revenue Bond | <ul style="list-style-type: none"> • Market rate high b/c of added t-costs • Blended rates and credits | |
| | Multiple institutions | None | <ul style="list-style-type: none"> • May require take-out to scale | |
| | | Revenue Bond | <ul style="list-style-type: none"> • Transaction costs could drive up rates • Blended rates and credits | |

Design component 1: The special assessment



- Repayment obligation is recorded and collected from property tax rolls with tax lien status upon default
 - Formation of special district allows assessment of obligation
 - Determination of recourse rights vis-à-vis tax lien and other mortgages or liens
 - Establishment and implementation of mechanics of recordation and assessment process
 - Up to 20-year amortization
 - Assessment stays with property upon sale
 - Mechanism for partial payment
 - Enforcement of lien rights
 - Loss severities and mitigation upon enforcement of lien rights

Design component 2: Credit and credit enhancement



- Lack of capital markets valuation of energy savings and PACE structure
- Target interest rate = 7% - 9%
- Real estate property valuations and borrower credit quality
- Cost of capital
 - Level of municipal support (effect on municipal rating?)
 - Quality of property credit
 - Enhancement structures
 - General market perception
- Enhancements
 - Higher cost of capital without municipal support arrangement
 - Non-recourse issuance drives need for credit enhancements
 - Use of subordinated structure through engagement of foundation

Design component 3: Drive Market Demand to Get to Scale



- Getting to scale requires:
 - Well-defined and efficient processes
 - Standardization
 - Bank participation and consent
 - Proven successes
- Marketing message
 - Owners
 - Tenants
 - Property managers/asset managers
 - Contractors
- Demand generation
 - Solutions by asset class (Class A, B, vs. C, multi-family, etc.)
 - Cross “collateralize” savings potential (EE, RE, water, stormwater, etc.)

Questions to Ask

- What is your market potential, and from which property classes?
- What EE/RE policies are put in place/can be put in place to drive demand?
- Do you have/can you get legislative authority?
- What are the program goals?
- What financing tools/fund sources, if any, does the jurisdiction have to launch a program?
 - If limited, what private partnerships could be created?

