Ballard Spahr
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FINANCING SUSTAINABLE CITIES AND TOWNS:
Making the Least and Most of Community Energy Demand

CDFA Sustainable Public Finance Symposium
Washington, DC
March 5, 2009

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Taking Action on Climate Change and Renewable Energy

- Enact community values
- Treat governmental facilities' heating, cooling, and electric load as assets
- Help citizens and local businesses achieve sustainability goals
- Finance energy investments efficiently

Make the Least of:

- Energy use
  - Building efficiency
  - Systems efficiency
- Payments for energy used
  - Switching fuels
  - Fuel purchasing strategies
  - Arbitraging fuel costs
  - Arbitraging time of usage

Make the Most of:

- Existing infrastructure
  - Retrofit, repurpose, switch fuels
- Tax advantaged financing
  - Investment tax credits
  - Production tax credits
  - Tax-exempt bonds
  - New Stimulus Package Incentives
- Environmental assets
  - carbon credits
  - renewable energy credits (RECs)
- Demand response programs

Ownership Models

- Direct governmental ownership
  - Keeps it simple
- Special agency ownership
  - Municipal authority
  - Municipal utility
  - Government benefit corporation
- Public - private partnership
  - Project Finance

Incentives Drive Structure

- Investment tax credits
  - Now available for most renewable energy
  - Energy efficiency
  - Must achieve tax ownership for investors
- Production tax credits
  - Biomass and wind electric generation
  - Must be the “operator” of the facility
- Tax credits now “refundable” throughout U.S. Treasury grant
- Tax-exempt finance
  - Government owned
  - Solid waste fuel
  - District heating and cooling
- New or expanded tax credit bonds

Project Finance

- Finance asset on its own revenues
  - Long term university purchase contract
- Project makes money independent of volatility in input and output markets
- Performance guarantees from operator
- Tax-benefits impact on price outweighs residual value
  - Can have fair market value purchase option
- Structure has cost

Solar Rooftops

- Government can buy and own
  - Tax-exempt or tax-credit bond finance
- Private vendor partnership
  - Rooftop lease
  - Solar power purchase agreement
  - Leveraged lease or lease down structures for tax-equity
- Solar RECs

Biomass Energy

- Governmental Ownership
  - Tax-exempt or tax credit bond finance
- Private partnership (using production tax credit)
  - Private tax entitlement can be established by facility lease
  - Tax-exempt finance if waste fuel, etc. (no penalty for combining)
  - Partnership “flip”structure
- Co-firing in existing boilers
  - Emissions co-benefits
  - RECs for electricity
  - Carbon credits for heat generation

Building Efficiency

- Government Ownership
- Energy Service Company
- Private Ownership
  - Investment tax credits
  - New market tax credits
  - Historic preservation tax credits

New Market Tax Credits

- For private ownership
- Low Income or low population areas
- Tax credits generated over seven years
- Covers 29 percent of financing costs
- Credit entitlement usually established by lease
- Typically used for real estate development
- Need a lender with an allocation

Sales of Carbon Emission Reductions

- Verified Emission Reduction ("VER")
- One metric ton of avoided CO_2e
- Independent verification
- Certification or Registration
  - Required under Kyoto
  - Advisable in United States Voluntary Market

Sales of Carbon Emissions Reductions

- Project – a facility or activity
- Protocol – baseline, reductions
  - Owned emissions source
  - Displaced emissions source
  - Capture and sequestration
- Ownership
- Regulatory Status – required or voluntary
- Additionality

Renewable Energy Credits

- State law requires retail electricity sellers to sell a percentage of renewable energy
- Can comply by generating your own or buying Renewable Energy Certificates (RECs) produced by others
- Many states allow banking
- Accounting by the Regional Transmission Operator and central registry

Financing with RECs and VERs

- Forward purchase agreement
  - Carefully define the product
  - Provisions for missed deliveries
  - Credit Terms
  - ACORE, EMA, ABA Models
- RECs and VERs can count on the project pro forma even if not presold

Sustainable Energy Utility

- VT, DE, DC, and NJ models
- Makes sense on a city, county or regional basis
  - Use municipal authority
- Can be project specific
  - Berkeley, CA solar project

Sustainable Energy Utility

- Cities are creatures of state law – limited powers
- Aggregates properties to make attractive to developer
- Runs RFP or prequalifies contractors (smart purchasing)
  - May have more flexible procurement standards than citiy
- Contractual intermediary with city and private parties
  - E.g. Solar: leases roofs and subleases to developer
  - Can also act as long-term power purchaser
  - Avoids city restrictions on long term contracts
- Finances on a project finance basis
  - Avoids city debt limits
- Aggregates and Sells RECs and Carbon Credits
  - Avoids restrictions on sale of city property
- Creates center of expertise and connections for projects

Delaware Sustainable Energy Utility

- To be responsive to customers and market forces in implementing and redesigning the programs it delivers;
- To design a portfolio of programs to allow all energy end-users, regardless of electricity or gas retail providers, and regardless of market segment or end-use fuel, to participate in the SEU programs;
- To promote program initiatives and market strategies that address the needs of persons or businesses facing the most significant barriers to participation;
- To promote coordinated program delivery, including coordination with low income weatherization programs, other efficiency programs, and utility programs;
- To coordinate with relevant regional and national energy efforts and markets, including markets for pollution emissions offsets and credits, and renewable energy credits;
- To consider innovative approaches to delivering sustainable energy services, including strategies to encourage third party financing and leveraged customer contributions to the cost of program measures, as consistent with principles of sound program design;
- To offer "one-stop shopping" and be the point-of-contact for sustainable energy services in Delaware;
- To create a comprehensive website that provides easy access to SEU programs and information for all Delawareans, allowing them to participate in SEU programs electronically;
- To emphasize "lost opportunity" markets, which are sustainable energy measures that can only be cost-effectively captured at particular times, such as during new construction or extensive remodeling; and
- To emphasize market strategies to deliver services.

Conclusion

- Enact your values
- Where there is a will there is a way

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