

Putting Performance Contracts To Work For Local Government

Local Government Energy Savings Resources
Meeting

April 15, 2009

Office of the Business Energy Ombudsperson

- Legislatively-mandated office
 - N.J.S.A. 48:2-92 et seq.
- Mission is “...to provide education and assistance to any business with regard to energy costs, third-party suppliers, State energy programs, subsidies and grants...”
- Funded through Retail Margin

The Governor's Challenge

- Draft Energy Master Plan calls for reduction of 20% in projected energy growth by 2020
 - Would yield annual electric savings of 20,000 gigawatthours
 - Would also yield annual heating savings of 119 trillion Btu
- Energy savings achieved through:
 - Building Codes
 - Appliance Standards
 - Appliance Replacement
 - Existing Buildings

The Case for Energy Efficiency

- Cost-effective EE improvements to the state's 3.7 million existing buildings would save about 15,000 GWh and 98 TBtu by 2020
 - This represents 75% of EMP goal on energy savings
 - Goal would require addressing more than 300,000 per year through 2020 – more than the total number of buildings addressed in the first 5 years of the Clean Energy Program

Performance Contracting Legislation

- P.L. 2008 ch. 83 This law authorizes contracts of up to 15 years for contracts commonly known as “power purchase agreements.” These are programs where the contracting unit procures a contract for, in most cases, a third party to install, maintain, and own a renewable energy system solar panels, windmills or other renewable energy system in exchange for the contracting unit purchasing the power generated by the renewable energy system at agreed upon rates.
- P.L. 2009 ch. 4 This law authorizes government entities to make energy related improvements to their facilities and pay for the costs using the value of energy savings that result from the improvements. The “Energy Savings Improvement Program” (ESIP) law provides a flexible approach that can allow all government agencies in New Jersey to improve and reduce energy usage with minimal expenditure of new financial resources.

The Contracting Mechanism

- Power Purchase Agreement (PPA)
- Performance Contracts

Energy Efficiency Contracts

■ ESIP Performance Contract

- Lease Financed (bonds)
- Debt/Lease < energy savings
- Term
 - 15 years energy efficiency
 - 20 years CHP

■ PPA

- Lease Financed (bonds)
- Energy Savings power purchased < grid power
- Term 15 years

Other Revenue

■ ESIP Performance Contract

- Electric sale/purchase
- Thermal sale/purchase
- Smart Start EE rebates
- Smart Start PFP
- State CHP (PFP)
- State CHP (RM)
- PJM Incentives (demand response)
- Federal Incentives
 - 10% ITC CHP 5 yr ACRS
 - Fed Stimulus Funds?
- Carbon Credits ?

■ PPA (Renewable)

- Electric sale/purchase
- SREC's
- REC's
- Federal Incentives
 - 30% ITC 5 yr ACRS
 - Fed Stimulus Funds
- Carbon Credits?

Contracting Issues

- This is a long term relationship
 - Term of contract should align with life of equipment
 - Think of a car lease you don't take 20 year lease on a car with a 10 year life
 - CHP 20-30 year useful service life (with major maint)
 - Boilers-large water tube 25+ years, water tube 20 years, small modular 10-20 years
 - Central Chillers 20+years
 - Rooftop DX 10-15 years
 - Solar PV 20-30 years (mfg and type vary)

Contracting Issues

- Maintenance and Repair (service contracts)
- Removal and disposal at conclusion of contract (may impact type of lease and on balance sheet or off balance sheet (need a lawyer))
- Unit Prices for Energy
 - \$/kwh (energy) \$/kw (demand)
 - \$/btu's consumed (energy) \$/btu capacity (demand)
 - Escalation
 - Discount from avoided cost i.e. 90% of tariff
 - Fixed price with a minor discount from tariff but a flat rate (savings increase in value)
 - Is the proposed escalation index correct and valid? CPI, PPI, Nymex
- Fuel risk V.I.P. for CHP and GHP or any thermal energy indexed to market
- Operation who does what, training of your personnel?
- Termination (for cause, for convenience) Term of contract should align with life of equipment
 - Spell it out with costs over the term of the contract
- Remedies

Contracting Issues

- Assignment
- Insurance Yours / Theirs (what happens if there is a fire act of God)
- Security and personnel (Schools-contractor personnel)
- Existing Condition of facilities
 - PPA Roof Issues Structural, roof surface (white/reflective) warranties
 - PPA removal and replace PV to execute a roofing repair/replacement
 - Compatibility of proposed energy improvements with existing
- Utility interface
 - CHP reverse power
 - PV reverse power and net metering
 - Power quality reliability

Contracting Issues

- Base Line of Energy Use (from which savings are determined)
 - Hours of Operation (BIG PROBLEM AREA)
 - Changes in use post retrofit A/C vs non A/C school building

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