



Performance Contracting: Integrating Clean Energy Usage and Supply Projects

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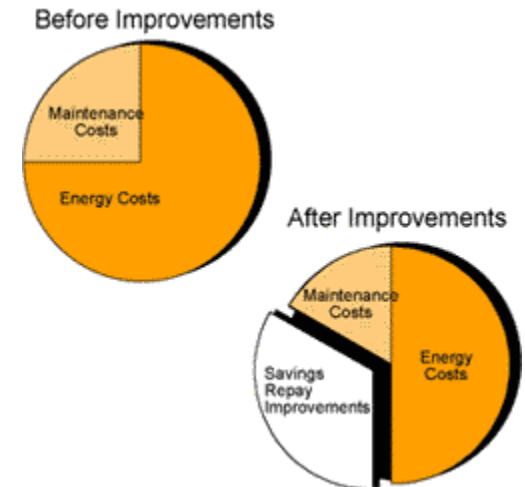
Today's Discussion

1. Performance Contracting
2. Usage & Supply Projects: Competing or Complementing?
3. Customer Energy Master Plan
4. Financing Structure: Deemed & Measured Savings
5. Concluding Remarks



1. Performance Contracting

- **Turnkey Service** – all of the services required to design and implement a comprehensive project at the customer facility, from the initial energy audit through long-term Monitoring and Verification (M&V) of project savings.
- **Comprehensive Measures** – a comprehensive set of measures to fit the needs of a particular facility, and can include energy efficiency, renewables, distributed generation, water conservation and sustainable materials and operations.
- **Project financing** – long-term project financing that is provided by a third-party financing company. Financing is typically in the form of an operating lease with a lien on the equipment.
- **Project Savings “Guarantee”** – a “guarantee” that the savings produced by the project will be sufficient to cover the cost of project financing for the life of the project.

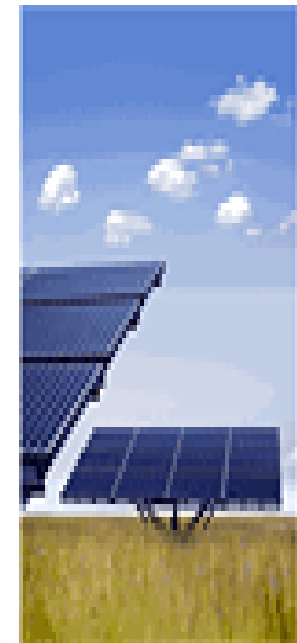


Sources:

Introduction to Energy Performance Contracting, U.S. Environmental Protection Agency ENERGY STAR Buildings, October 2007, *Energy Services Coalition*

2. Usage & Supply Projects: Competing or Complementary?

	Utility Large Commercial Rate	PV EPC Agreement Price
Elec. Price (\$/kWh)	\$0.15	\$0.07
Electric Bill	\$750K	\$350K
kWh Usage Before	5 million kWh	5 million kWh
20% Typical Savings	\$150K	\$70K
Payback	3 years	6.4 years
Customer Savings (20%)	\$30K	\$14K
Developer/Financier Cash Flow (80%)	\$120K	\$56K
IRR 10 Years	24.2%	4.5%
Investment	\$450K	\$450K



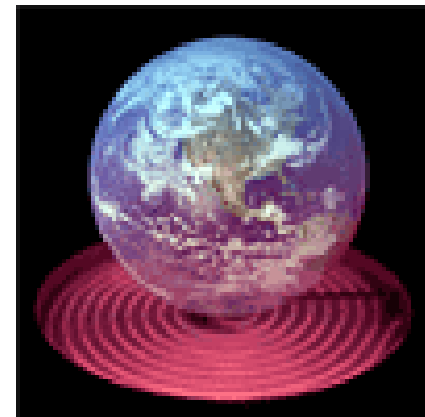
2. Usage & Supply Projects: Competing or Complementary?

- U & S projects can be integrated as one energy cost savings delivery system
- Find usage savings options with 3 year payback (attractive IRR) based on clean energy EPC kWh price & re-size supply
- Evaluate and deliver as one project that reduces both energy use & price



3. Customer Energy Master Plan (“Integrated Resource Plan” for Customer)

- Ideally Integrated with Customer’s Business Plan as a Strategic Path to Increase Value for all Stakeholders:
 - Reduce Cost (Customers, Shareholders, Employees, and Community)
 - Minimize Energy and Water Use (Community)
 - Product and Firm Positioning (Customers, Employees and Shareholders)
 - People Comfort in Healthy Buildings (Customers, Employees)
 - Create Jobs (Employees, Community)
 - Sustainability (All stakeholders)
- Usage Savings Options
- Clean Supply Options
- Water / Sewer Savings Options
- Operational Savings Options
- Building Comfort Options
- Sustainability Options



4. PC Financing Structure: Deemed and Measured Savings

- **Cost savings and financing terms from usage reductions based on deemed savings:**
 - Average kW reduction * hours of operation * price
 - Only average kW reduction is “guaranteed”
 - Performance recourse on the ESCO ; default risk assumed by financier
 - Usually leased & secured with security interest in equipment (“operating lien” is a heavy hammer; building loses cert. of occupancy without operating HVAC!)
- **Supply cost savings measurement less risky as supply is directly metered**



5. Concluding Remarks

1. Develop an energy and water master plan with your host customer to plan financing.
2. Integrate clean usage and supply options that minimize customer's bills and usage and delivers attractive cash flows to the ESCO developer and financier.
3. Base usage savings \$ terms on deemed savings.
4. Although usage projects are smaller than supply projects, there is approximately \$5 - \$6 billion in savings revenue annually and is projected to growth at 20-25% per year (source: Lawrence Berkeley Laboratories).

THANK YOU!