INNOVATIVE STRATEGIES FOR FINANCING ENERGY AND WATER EFFICIENCY PROJECTS

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HOTEL ENERGY PERFORMANCE: OBSERVATIONS

Boston has a very green hospitality sector!

- High rate of Energy Star and other certifications
- Support from nation’s best-funded utility programs
- Many success stories, some featuring deep energy use reductions

Yet much potential remains untapped --

- Case studies feature projects with ≤ 2.5 year paybacks
- Green Ribbon Commission survey:
  • Energy efficiency can lose out in competition for capital
  • For some deeper measures, incentives don’t support adoption
ELIMINATING CAPITAL AS A BARRIER: THE SOLAR ENERGY MODEL

- On a lifecycle basis, solar is often competitive.

- Most building owners won’t make the capital outlay.

- Third-party power purchase agreements (PPAs) enable building owners to gain the benefits of solar energy without any capital outlay.

- PPAs and other third-party mechanisms have become the preferred solution.
  - Also widely used for combined heat and power (CHP).

ELIMINATING CAPITAL AS A BARRIER: THE NEW NORMAL IN SOLAR ENERGY
APPLYING THE MODEL TO ENERGY EFFICIENCY: ENERGY SERVICE AGREEMENTS

- **Challenge:**
  - 5-6 year simple payback for overhauling major systems
  - Capital cost = $500K or more
  - End-of-life replacement = limited utility incentives
  - Future maintenance and optimization not assured

- **Solution:**
  - Project developer designs, funds, builds and owns new systems
  - Owner pays service charge for “negawatts” and “negatherms”
  - Energy costs drop and stabilize
  - Developer provides maintenance and optimization service
  - At end of term, owner buys installation at fair market value or renews

PROJECT PRO FORMA: AN EXAMPLE
TYPICAL SOLUTION DEVELOPMENT AND IMPLEMENTATION PROCESS

Phase 1: Average Timeframe 2 months
- Benchmark Energy Performance & Conduct Preliminary Assessment
- Sign Letter of Intent/Term Sheet
- Conduct Detailed Energy Audit

Phase 2: Average Timeframe 2 months
- Design Solution & Detailed Project Plan
- Approve Design & Sign PACE or Energy Service Agreement
- Design, Build & Commission Improvements

Phase 3: Timeframe depends on scope
- Measure & Verify Performance
- Maintain & Optimize

Phase 4: Ongoing

ENERGY SERVICE AGREEMENT STRUCTURE

Building Customer
- Operations and maintenance services
- Monitoring & validation of savings

Efficiency Contractors
- ESP Contract
- Installation svcs.
- Maintenance svcs.
- Savings guarantee

Project S.P.V.

EE Investment Fund

Legend
- = Services and responsibilities
= = Contract

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Investment management
GOING DEEPER: EXAMPLES

- New England independent school
  - Commitment to sustainability, and multiple renewable energy installations, but
  - Efficiency of older buildings still awaits action – high EUIs
  - Opportunities: heating/HVAC, controls, lighting, building envelope
  - Retrofit 8 highest priority buildings -- $721,000 construction cost, no capital outlay by school

- CT townhouse apartment complexes
  - Master-metered heating and DHW systems, controls, insulation
  - Use ESA or C-PACE to upgrade without capital outlay by owner

- Assisted living facility
  - Mixed CHP and efficiency opportunity
  - $1.4 M integrated project without capital outlay by owner

RENEW ENERGY PARTNERS LLC

Renew Energy Partners LLC offers innovative project development and financing solutions to unlock deeper energy efficiency improvements in commercial, industrial and institutional buildings.

We enable firms to undertake major projects without upfront capital, and avoid roadblocks or long delays in improving building performance.

We work with best-in-class contractor partners to deliver real and lasting energy savings.