



Innovative Financing Strategies for Green IT:

Using Energy Efficiency Savings to Support IT Transformation

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IT Transformation Opportunities



- Federal Data Center Consolidation Initiative (FDCCI) seeks 40% reduction in number of data centers
- IT Transformation opportunities are rapidly expanding:
 - Super Efficient Data Centers
 - Cloud Computing
 - Desktop and Server Virtualization
 - Thin Client Computing
 - Telecommunications: e.g. : Voice Over Internet Protocol
 - Mobile Computing



Fiscal Challenges



- Costs for IT Transformation can run into the hundreds of millions of dollars.
- Current FY 12 Federal fiscal environment is daunting: major agency Operating and Capital Budget reductions.
- FY 13 and beyond is even more challenging: Supercommittee recommendations due November 23 pose potential across the board percentage reductions for FY 13 and following year budgets.
- Agencies need to seek alternative financing vehicles such as Energy Performance Savings programs to finance IT Transformation.



Energy Performance Savings



- **Energy Savings Performance Contracts (ESPCs) and Utility Energy Saving Contracts (UESCs):** Federal agency energy savings projects without up-front capital costs and without Congressional appropriations.
- An ESPC partnership between a Federal agency and an **Energy Service Company (ESCO)** conducts a comprehensive energy audit, identifies improvements, and designs an energy saving project.
- The ESCO arranges funding, guaranteeing improvements that generate energy cost savings sufficient to pay for the project. Cost savings accrue to the agency after the contract expires, which can run up to 25 years.



DOE ESPCs



- **DOE Federal Energy Management Program ESPCs:** indefinite-delivery, indefinite-quantity (IDIQ) contracts making ESPCs practical, speedy, and cost-effective for Federal agencies.
- Sixteen “**Super ESCOs**” can meet terms and conditions established in IDIQ contracts. DOE ESCOs include many familiar top US engineering and design firms and can serve any Federally-owned facility worldwide.
- Typically ESPCs have been used for “low hanging fruit” projects like efficient lighting and HVAC improvements, bundled with projects with longer term paybacks.



ESPCs Today



- Energy Performance Savings are used by every Federal agency which owns a building, financing **half of all Federal energy efficiency investments** since 2003.
- ESPC process is now streamlined with a quicker timeline than traditional contract bidding procurement processes.
- Previously, ESPCs were not used for IT Transformation, due to longer term payback periods and frequent equipment turnover and refresh.
- CEQ Chair Nancy Sutley in a 8/23 White House Memo **strongly urges** agencies to increase creative use of ESPCs.



DOE HQ IT/Data Center Case Study



- DOE CIO assessed multiple Headquarters data centers and identified potential for substantial performance and energy efficiency improvements in a consolidated facility. Budget resources were unavailable for IT Transformation.
- ESPC strategies for IT were positively evaluated for feasibility based upon lower interest rates, multiple refresh cycles, and operational and energy savings
- In late 2010, CIO began discussions with FEMP that led to the first Federal ESPC for data centers and IT Transformation.



DOE Case Study (Continued)



- 3/11: Notice of Opportunity prepared and released to 16 ESCOs inviting proposals to determine feasibility of IT ESPC.
- 5/11: 12 ESCOs respond with Expressions of Interest, partnered with top U.S. IT organizations.
- 6/11: Four ESCOs selected for final written and oral presentations to DOE selection panel.
- 7/11: Lockheed Martin selected Project ESCO.
- 8/11: Preliminary Assessment (PA) launched.
- 11/11: Lockheed to present PA results for agency review, discussion, and agreement.



Lessons Learned



- Energy Performance Contracting is a mature investment mechanism utilizing energy savings to forward finance vital efficiency projects.
- The ESPC marketplace is competitive and ready to build partnerships with agencies and advanced IT enterprises to generate necessary resources and solutions for IT Transformation, based upon feasible payback approaches.
- While results are not yet conclusive, the DOE Case Study suggests ESPCs can be a highly feasible and flexible funding strategy to address 21st Century IT and data center needs.



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