

Testimony of Randy Clark
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Before the Senate Subcommittee on Energy
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Chairman Franken, Ranking Member Risch and members of the subcommittee, thank you for inviting me to testify today regarding private sector mechanisms and financing available to advance energy efficiency in the states.

I am Randy Clark, Senior Vice President, NORESKO, one of the largest energy service companies in the United States utilizing performance-based contracting to deliver energy and maintenance savings and significant infrastructure upgrades to existing facilities. NORESKO is part of UTC Building and Industrial Systems, a unit of United Technologies Corporation. United Technologies is a leading provider to the aerospace and building systems industries employing 220,000 people, including 90,000 in the United States. NORESKO specializes in developing and implementing Energy Savings Performance Contracts for governmental and institutional clients spanning the Federal, state and municipal sectors. In my role at Noresco, I manage the performance contracting business with state agencies, local governments, school districts, public and private universities, and healthcare institutions.

Energy Savings Performance Contracting (ESPCs)

I am here today to discuss how ESPCs deliver energy and cost savings at the state and city level to municipalities, universities, school districts and hospitals (commonly referred to as the “MUSH” market). This same mechanism is also used to deliver cost savings through energy efficiency to multi-family housing agencies. Specifically, I will discuss how this private sector contracting mechanism provides a cost effective pathway toward reducing building energy use, lowering costs and reducing greenhouse gas emissions.

Under an ESPC, a private sector company like Noresco installs new energy efficient equipment at no upfront capital cost to the building owner. ESPCs are typically used for larger facilities or building campuses where there is an opportunity to capture significant energy cost savings. At its most basic, an ESPC converts the money a building owner currently spends on wasted energy into a payment stream that finances energy-saving capital improvements in the facility. The building owner repays this investment over time with funds saved on utility costs. The energy service company will measure, verify and guarantee these energy savings, and private sector financiers provide the capital, which today is available at historically low interest rates. Under the contract, the building owner never pays more than they would have paid for utilities if they had not entered into the ESPC. In addition to generating energy and dollar savings, years of deferred maintenance at buildings are successfully addressed by ESPC projects at no additional cost to the owner. For these reasons, ESPCs have proven to be a highly successful means to implement comprehensive energy efficiency projects.

States are increasingly turning to ESPCs to achieve cost effective energy efficiency. In 2011, Minnesota enacted enabling legislation (16.144/Executive Order 11-12) allowing state agencies to enter into ESPC's. Since that time, the Department of Commerce created the Office of Guaranteed Energy Savings Programs to help pre-qualify Energy Savings Companies (ESCOs) on behalf of state agencies and to provide technical and financial assistance and oversight in the implementation of projects. There are a number of Minnesota state agency projects current under development in this new program.

Over 30 states have now authorized state ESPC programs and the energy service company market is estimated to exceed \$5 billion annually. ESPCs provide a number of benefits to the facility, which include:

- Guaranteed performance and cost
- Enhanced reliability and energy security
- Reduced carbon footprint and emissions
- Improved and modernized infrastructure
- Decreased deferred maintenance burden
- Improved indoor working environments

Regional benefits also accrue and include:

- Local job creation of approximately 95 direct and 114 indirect jobs for every \$10 million of investment¹
- Engineering, manufacturing and trade labor engagement
- Small, minority-owned, and women-owned business subcontracting opportunities

Most ESPC contracts range from 12 to 20 years. This allows for the bundling of multiple energy conservation measures; that is, the ability to pull a comprehensive package of energy saving measures together that maximizes energy and cost savings opportunities for the customer. Individual energy conservation measures (ECMs) which can make up a bundled ESPC project may include lighting, building controls, HVAC, boiler or chiller plant improvements, building envelop modifications, water savings, refrigeration, renewable energy systems, load shifting and others. The ESCO guarantees that savings accrue and is reimbursed for their investment over this period.

The market for building energy efficiency projects is strong. According to a 2013 ESCO market survey sponsored by the National Association of Energy Services Companies (NAESCO) and conducted by the Lawrence Berkeley National Laboratory, the total market potential for energy services project investment in non-federal facilities is between \$66 and \$120 billion. Of that, the investment potential for K12 schools and state and local buildings alone is between \$26 and \$45 billion. The good news is that the ESCO community is capable of delivering these energy savings. According to the 2013 LBNL study, there are more than 140 companies across

¹Federal Performance Contracting Coalition, accessed February 10, 2014.
<http://federalperformancecontracting.com/WYSIWYGIImage/Job%20Impact%20of%20ESPCs%20chart%20-%20ESPCs.pdf>

the U.S. that characterize themselves and serve the marketplace as ESCOs, and 45 of these provide the wide range of supply and demand side services that meet the NAESCO definition of an ESCO

Challenges and Opportunities

Despite the associated benefits of utilizing an ESPC, including financing critical facility improvements without the need for upfront capital, the mechanism is underutilized. The barriers to increased usage are difficult to quantify but revolve mostly around the fact that performance contracting is different from traditional procurement processes for government and institutions. The vast majority of ESPC projects for MUSH building owners are financed with long-term tax exempt leases or bonds rather than through capital funds or appropriations, but these leases and bonds have their own challenges especially in light of the increased uncertainty around state and local tax revenues since the economic downturn in late 2008. Overall, MUSH building owners have been reluctant to incur new or additional debt related to building improvements even when the building improvements are 100% funded from energy and operational savings.

According to a 2008 LBNL study, the differences in the penetration rates of ESPC projects in the surveyed states appear to be related to the ability of state governments to overcome policy and programmatic barriers to ESPC implementation. The study included among its recommendations that State agencies should consider pursuing funding and technical assistance available through ratepayer-funded energy efficiency programs administered by utilities or third party administrators, and possibly integrating these resources with ESCO-delivered energy efficiency investments to maximize the level of dollar and energy savings to be mined from state facilities.

Some states are taking steps to address these barriers. The State of Delaware created the Sustainable Energy Utility (SEU) to assist with and encourage energy performance contracting for buildings in the State. The SEU issues tax-exempt debt on behalf of public entities in the State in order to fund the investment in building infrastructure. The SEU issued \$70 million of bonds in late 2011 and has a number of comprehensive energy efficiency projects completed or in the final stages of implementation. The Maryland Clean Energy Center is pursuing a similar approach to facilitating the financing of energy efficiency projects as is the Chicago Infrastructure Trust. In Massachusetts, a project recently completed by NORESKO with the University of Massachusetts Dartmouth was supported by \$2.7 million of investment from the local utility, NSTAR. This project is expected to reduce greenhouse gas emissions by 16,000 tons (CO2 equivalent).

ESPCs Provide an Opportunity to Cost Effectively Lower Greenhouse Gas Emissions

The Environmental Protection Agency (EPA) is preparing to propose a rule directing states to establish carbon dioxide performance standards for existing electricity generation units under Section 111(d) of the Clean Air Act. This rule is understandably controversial and there are many perspectives about how EPA might best enable State flexibility in giving utilities a menu of cost effective compliance options. The fact of the matter is that when this rule is

finalized, energy efficiency is the compliance option that can dramatically lower the cost of regulation for both utilities and consumers while achieving substantial carbon dioxide reductions.

States and utilities have a long, successful track record in investing in energy efficiency programs. These programs include demand response initiatives, energy efficient appliance rebate programs and education efforts. ESPCs provide an additional and largely unrealized opportunity to cost effectively reduce energy demand and deliver carbon dioxide reductions. In addition, energy service companies are already responsible for measuring, verifying and sustaining the energy savings over long periods of time, so the emission reductions are real.

To date, the environmental potential through ESPC projects is far from being fully realized. According to a Lawrence Berkeley National Laboratory report, “barriers to implementing performance contracts remain high enough in private sector commercial and industrial facilities,” resulting in a penetration rate of less than 10 percent. By allowing states to satisfy reduction goals under such carbon dioxide performance standards through ESPC projects, EPA can unlock this potential while also achieving the rulemaking’s goal of realizing substantial emission reductions at lowest cost.

The mechanism for crediting major building energy efficiency investments under a Section 111(d) compliance plan can build on widely accepted approaches already implemented in the private sector for major energy efficiency projects. Therefore, EPA should (1) recognize ESPC projects as a favored method towards meeting compliance; (2) require States to include measurement, monitoring, verification and reporting results for all contractual methods of energy efficiency used to meet the EPA compliance requirement; and (3) provide additional procedures needed to translate energy savings into creditable emission reductions.

Conclusion

In summary, ESPCs are a private sector financing mechanism that allows governments and building owners to increase their energy efficiency, decrease their energy costs without upfront investment and the savings are guaranteed by the contractor.

Chairman Franken and members of this subcommittee, thank you for the opportunity to appear before you today. I stand ready to answer any questions you might have.