

# Section 111(d) Demand-Side Energy Efficiency: Performance Contracting

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# ESCO Coalition Objectives

- Our companies have extensive expertise delivering project-based energy efficiency
- Energy efficiency is a cost-effective emissions reduction strategy
  - Whitepaper: Crediting CO2 Emission Reductions Achieved through End-Use Energy Efficiency Under Section 111(d)
- Third-party delivered energy efficiency—Performance Contracting—should be included as an acceptable compliance mechanism

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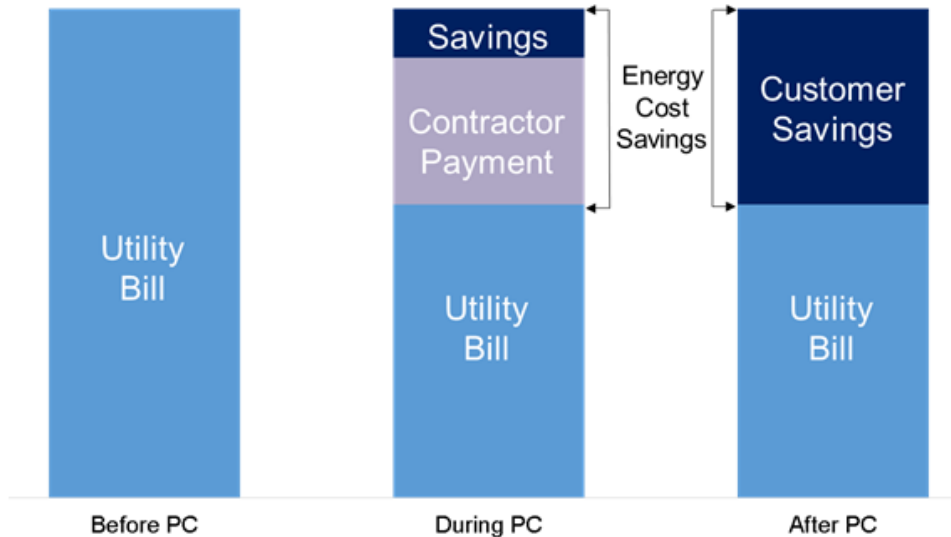
# Expanding EE in State Plans

- We recognize and support EPA's position on demand-side EE as a proven, well-established industry practice and common policy goal by many states
- Some states will consider a market-based, private-sector approach to energy efficiency as part of EE options
- Third-party approaches can complement utility or state programs, creating a more resilient and diverse compliance plan for states
- ESCO PC projects provide whole building/facility reductions and leverage building systems expertise which differs from traditional utility programs
- States have PC legislation, growing experience with PC contracting, and significant untapped efficiency resources

# What is Performance Contracting?

- Third-party energy savings projects in public and private buildings and facilities
- Integrated energy conservation measures aimed for maximum energy savings
- Contractual guarantee of savings validated by measure-level and building-level M&V
- Estimated \$7+ billion U.S. ESCO market—scalable for 111(d) compliance
- Could contribute to 111(d) Energy Efficiency:
  - Increase state flexibility
  - Lower 111(d) compliance cost

# How Performance Contracting Works



- Realigns utility expenses towards improvements which save energy and improve energy infrastructure in buildings and facilities
- Low-cost turnkey mechanism to reduce energy consumption and CO2 emissions
- Comprehensive whole-building, multi-building and/or facility energy improvements

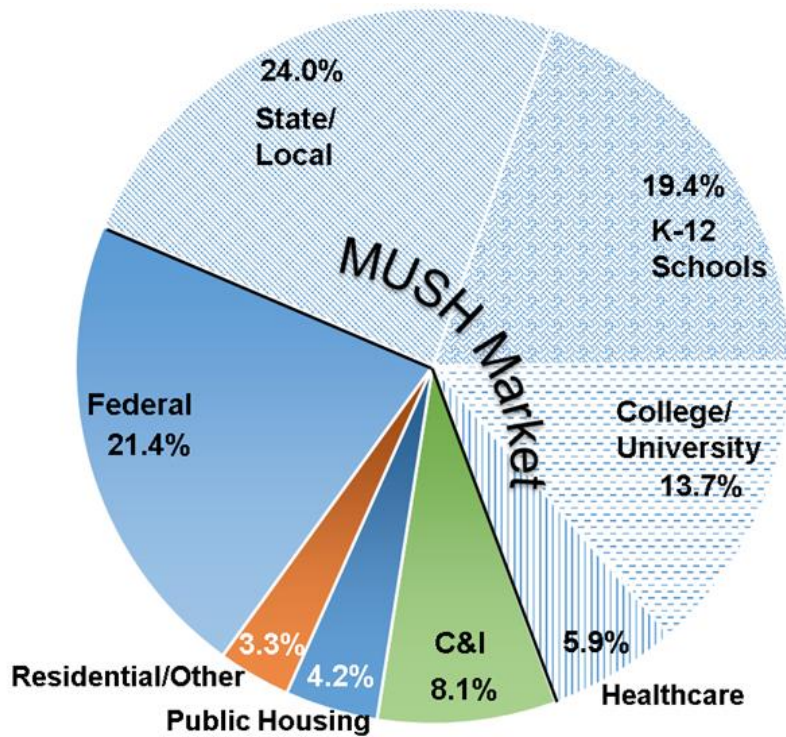
# Sample PC Energy Efficiency Program



- 2011 PC Project-based initiative in Delaware
- State-owned buildings spanning Administrative, Correctional, Educational
- Over 60 buildings, 1 university campus and 3 community college campuses
- \$147M Guaranteed Energy Savings
- First-year CO2 Emissions Savings:
  - 44,200,00 lbs. Co2

*Image and Information Courtesy of Delaware SEU*

# Performance Contracting Market



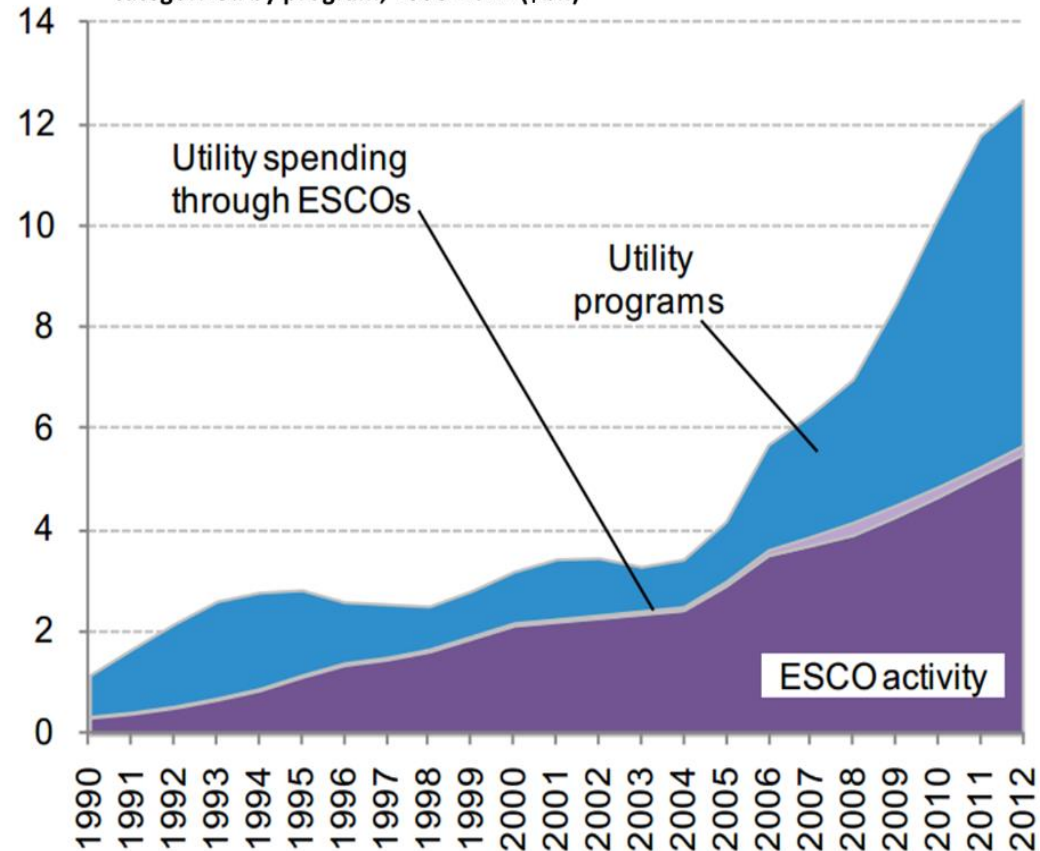
Source: Lawrence Berkeley National Laboratory

- Mature and established third-party mechanism for EE
- LBNL estimates \$7+ Billion 2014 U.S. ESCO market activity
- 85% of activity is in Federal, State, Municipal, University, Schools, Hospitals (MUSH)
- Scalable mechanism projected to grow through 2020

# EE Programs & ESCO Activity

- Utility EE Programs and ESCO activity are comparative in annual market investment
- ESCO activity is complementary to Utility EE Programs and can incorporate incentives (light purple bar)
- ESCOs do not rely on incentives/rebates to implement projects

Investment in Energy Efficiency through ESCOs and utility programs, categorized by program, 1993-2012 (\$bn)



Source: Bloomberg New Energy Finance, "Sustainable Energy in America Factbook", 2014.



# Performance Contracting Electricity Savings

## Potential Cumulative Electricity Savings from PC Projects

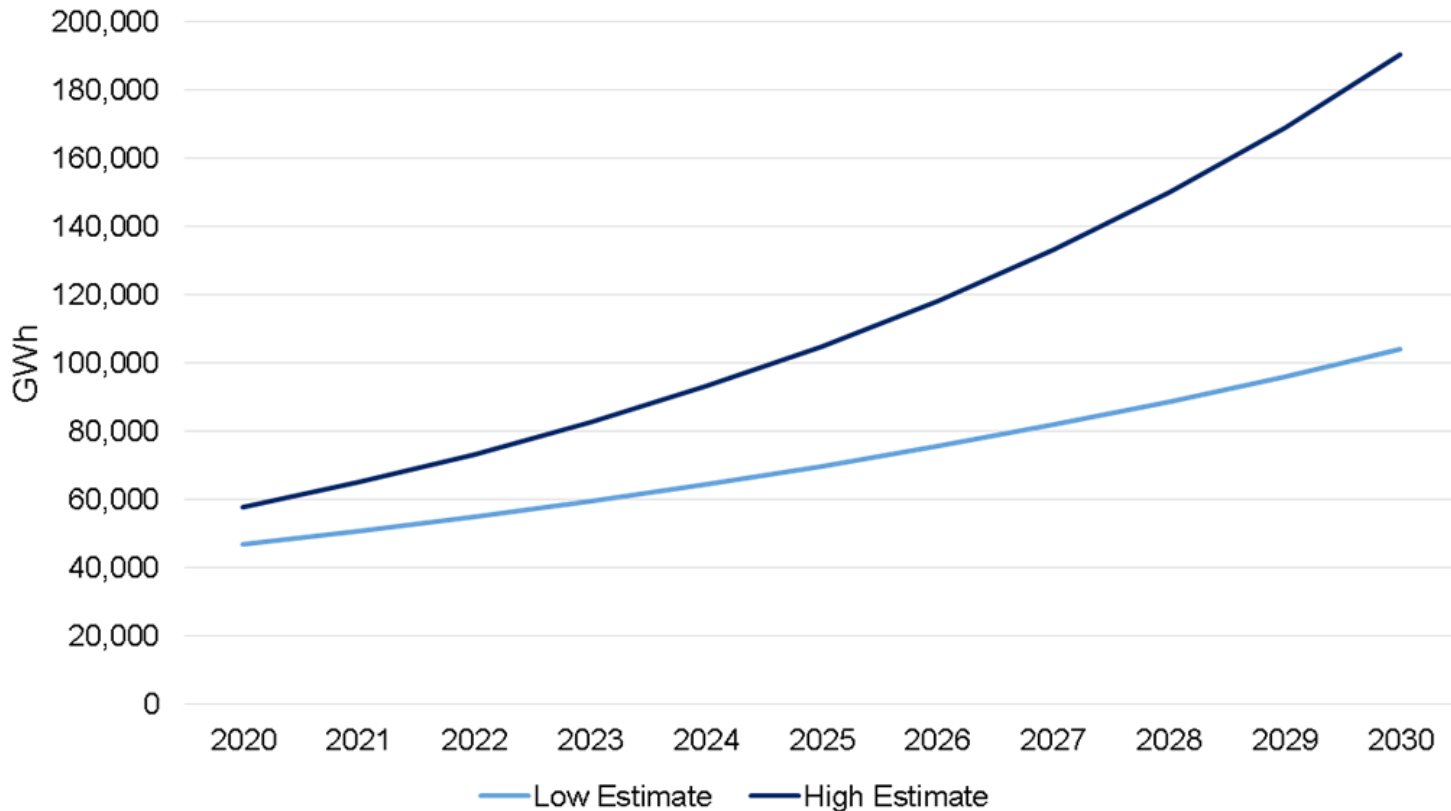


Figure represents estimates and analysis made by ESCO working group

# Status in Proposed Rule

- Proposed Rule encourages demand-side energy efficiency
- Explains utility-delivered energy efficiency programs
- Performance-contracting is not excluded; however it is not explicitly contemplated with sufficient guidance
- ESCO coalition is actively working towards inclusion in final rule with technical steering comments for the EPA and States:
  - Provides rationale and market information/data
  - Demonstrates potential for PC contribution to state goals
  - Guidance on implementation, requirements and M&V protocols

# Benefits as Compliance Mechanism

- PC is consistent with CPP Goals and Objectives
- PC can be universally incorporated into CPP pathways
- States have ESPC enabling legislation and majority of states have active PC markets
- EPA targets of 1.5%/year only consider state and utility-based programs – significant potential upside by including third-party EE programs such as PC
- PC programs can provide an additional means of enforceability if utility programs fall short of targets
- Projects include guaranteed energy savings with annual M&V

# Potential as Compliance Mechanism

## Potential PC Contribution to State 111(d) Compliance (for the 49 States that have 111(d) goals)

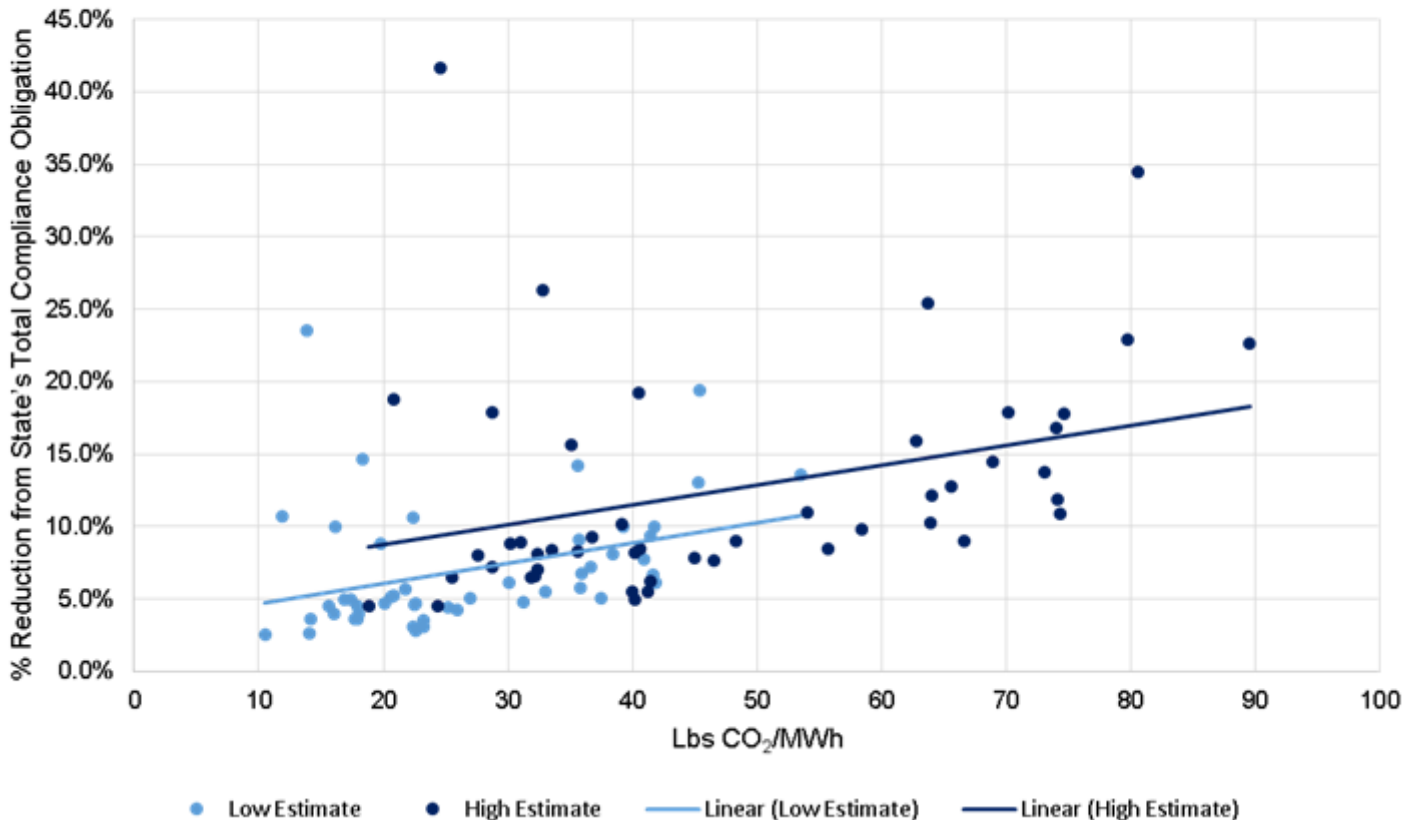


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# 10 Steps to Programmatic PC for Compliance

1. Establish/Expand PC Delivered Program
2. Include PC Program in State Implementation Plans
3. Develop PC Projects
4. Approve and Register PC Projects
5. Secure Emissions Credits/Incentives for Projects
6. Install and Commission Projects
7. Measurement and Verification of Projects
8. Address Project Performance Shortfalls
9. Evaluate, Measure and Verify Program Performance
10. Address Program Performance Shortfalls

# Considerations & Next Steps

- Not fully crediting PC actions starting before 2020 may create disincentives for efficiency action during 2014-2020
- ESCOs to submit formal comments to EPA with suggested improvements to proposed rule, model approaches and pathway information
- Engaging key state implementers (NACAA, NASEO, NARUC) and other key state government and industry stakeholders
- Need for EPA Action in Final Rule to clarify PC projects as form of EE compliance with sufficient guidance for states

# Thank You & Questions

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