# State Opportunities through Third-Party Delivered Energy Efficiency

Leveraging Energy Savings Performance Contracting to cost effectively meet regulatory requirements

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### **Energy Service Company Coalition**



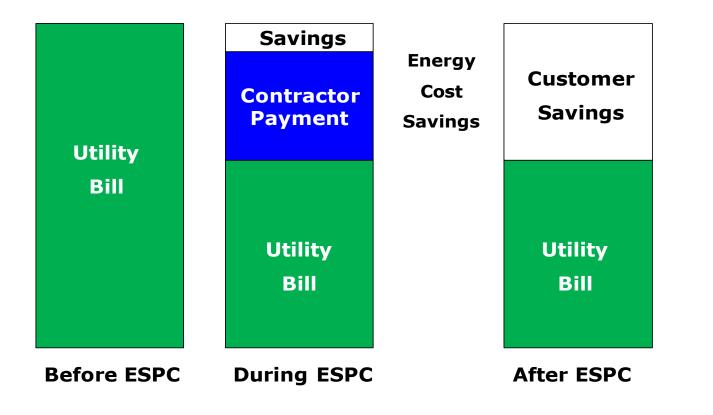


### **State Opportunities**

- Optimize State CPP Implementation Plans
- Collaborate on EM&V and EE Registry Development
- State NAAQS Implementation Plans
- Regional GHG Programs (AB 32 / RGGI)
- Utility Performance-Based Retrofit Programs
- State Executive Orders



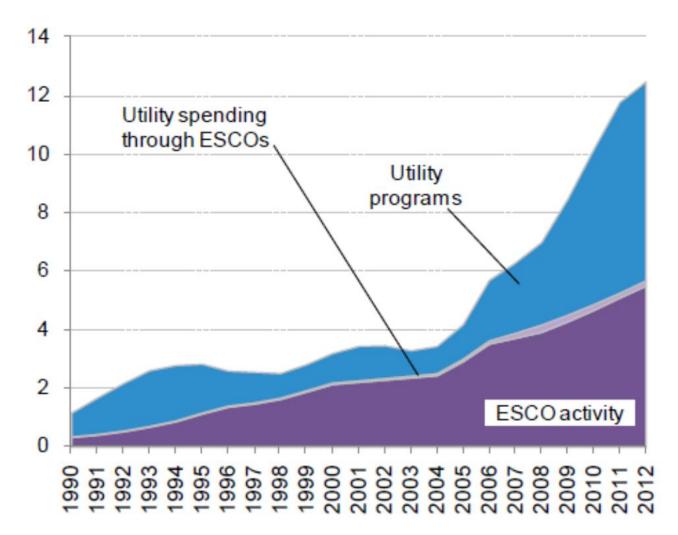
# **Energy Savings Performance Contracting (ESPC)**



- Realigns utility expenses towards
  improvements which save energy
  - Bundles multiple solutions (lighting, HVAC, controls, building envelope, renewables, etc.)
- Typical project energy reduction ranges between 15% to 30%
  - Contract term typically ranges
    between 10 to 17 years
  - Typical per project investment can range from \$1M to \$45M+
- Budget-neutral approach
  - Cost savings sufficient to repay project cost



## ESPC Market Investment (1990 – 2012)

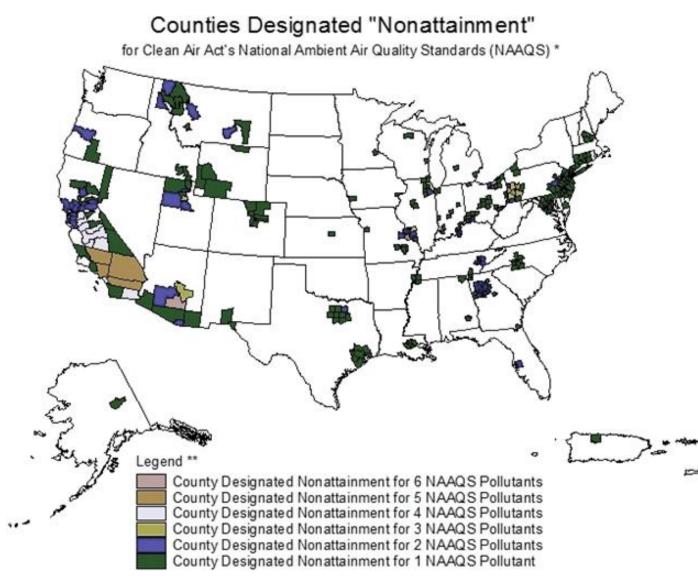


- \$7B+ U.S. investment annually through financing which is repaid through energy cost savings
  - Projected to grow to \$10 billion to \$15 billion annually by 2020
  - Scalable for 111(d) compliance
- Does not rely on state or utility investment
- Can incorporate other program incentives, rebates and credits

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



## **State Implementation Plans for NO<sub>x</sub>/SO<sub>x</sub> Reductions**



**36** STATES

**Designated Nonattainment** must further  $\downarrow NO_x$  and  $SO_X$  emissions to meet federal standards



## **State NAAQS Implementation Plans – Shreveport, LA**

#### **City of Shreveport, Louisiana**

- Shreveport's Early Action Compact (EAC) submission to US EPA for the 8-Hour Ozone Standard under the National Ambient Air Quality (NAAQS) Standards
- 20-year ESPC contract utilized for State Implementation Plan
- 33 Municipal Buildings Energy Savings of 9,121,335 kWh/Yr
- Measurement & Verification (M&V) consistent with EPA Roadmap for Incorporating EERE Policies and Programs into State and Tribal Implementation Plans
  - IPMVP Option A Retrofit Isolation (pre-retrofit/postretrofit/ annual sampled inspections)
  - IPMVP Option C Whole Building (utility bill/ meterbased analysis)
  - Monthly Tracking/Quarterly Reporting/Annual Reconciliation

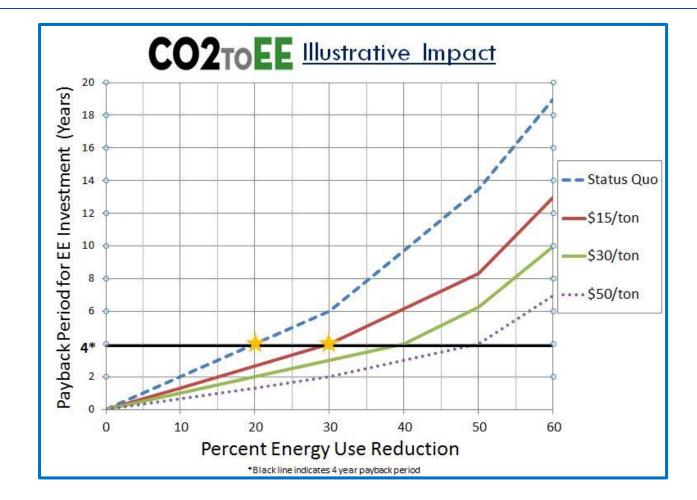


### **Scope of Improvements**

- Lighting Systems
- Mechanical Systems
- Control Systems
- Water Conservation



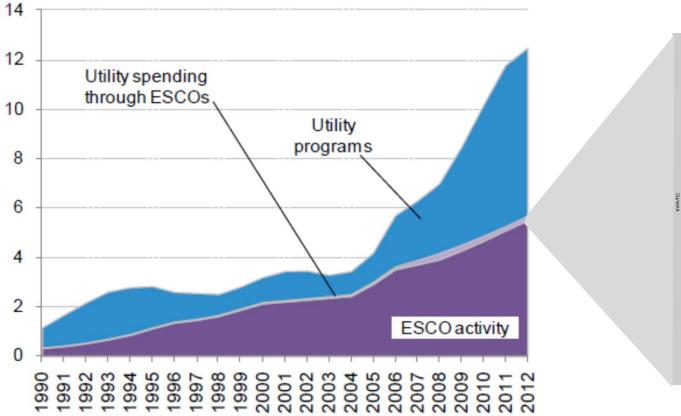
### **Regional GHG Programs - AB 32 / RGGI**

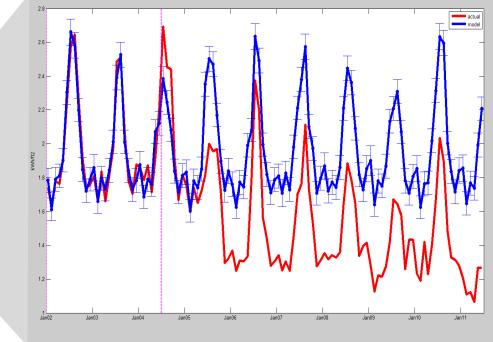


Expanding Energy Efficiency Financing for California Businesses, Schools, and Real Estate Owners



### **Utility Programs (Performance-based System Retrofits)**







## **State Executive Orders – Hawaii DOT**

### Hawaii Department of Transportation

- 12 Airports
- Lighting, HVAC, Controls, Water (75,000 fixtures)
- Renewable energy (9,100 solar panels/2.6 MW)
- 20 year Energy Savings Performance Contact
- 400 local jobs, while adding more than \$670 million in economic development
- 43,000 metric tons of CO2 saved annually.(equivalent to 100,000 barrels of oil)
- \$518M savings over 20 years





