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It's our nature.™

Lessons learned *venturing into the private sector market* *with Energy Performance Contracting*

Jeanna Paluzzi, CEO EPC Program Manager

Brian Carlin, Nexant Inc. Energy Engineer



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Energy Office

Energy Services Coalition's
Third Annual Market Transformation Conference
St. Paul MN, July 30, 2014

The Colorado Energy Office

MISSION STATEMENT

*The CEO's mission is to improve the effective use of all of Colorado's energy resources and the **efficient consumption of energy** in **all economic sectors**, through providing technical guidance, financial support, policy advocacy and public communications.*

DEPARTMENT VISION

*The CEO's vision is to help Coloradans live more prosperous and healthy lives by promoting innovative energy production and **efficient energy consumption** practices that are **beneficial to the economic and environmental health** of the state.*



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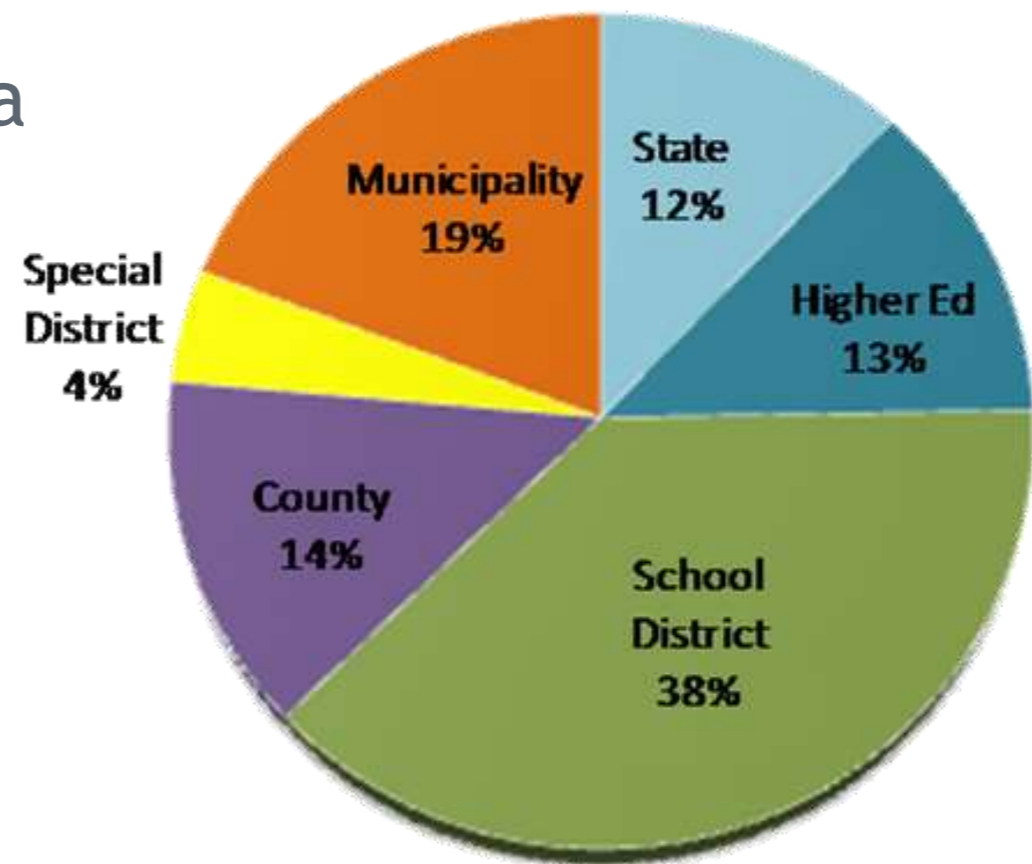
What is Energy Performance Contracting?

- A tool to finance *comprehensive* package of energy and water efficiency improvements all at once.
 - An *investment-grade* audit
 - Utility bill savings are *guaranteed*
 - Literally take those savings to the bank
 - *Budget neutral*
 - Facility improvements happen *all at once*
 - Savings are *measured and verified*
- **Not** a lighting-only retrofit
- **Not** a shared savings agreement



Public Sector EPC Performance as of June 2014

- Available since the mid-1990s
- 182 active and completed projects
- 143 facility owners benefitting
- \$447.4 M total project investments
- \$88.96 investments per capita



Public Sector EPC Performance as of June 2014

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- 143 facility owners
- \$447.4 M total project investments
- \$88.96 investments per capita
- EPC projects in communities across 75% Colorado counties
- Annual savings

\$28.8 M Utility cost savings

\$2.1 M O&M costs

141.8 M kWh Electricity

9.95 M therms Natural gas, propane, heating oil & coal

467,200 kgal Water

*Energy Services Coalition
Race to the Top*

#3

#5



National Success

Figure 118: Investment in energy efficiency through ESCOs and utility programs, categorized by program, 1993-2012 (\$bn)

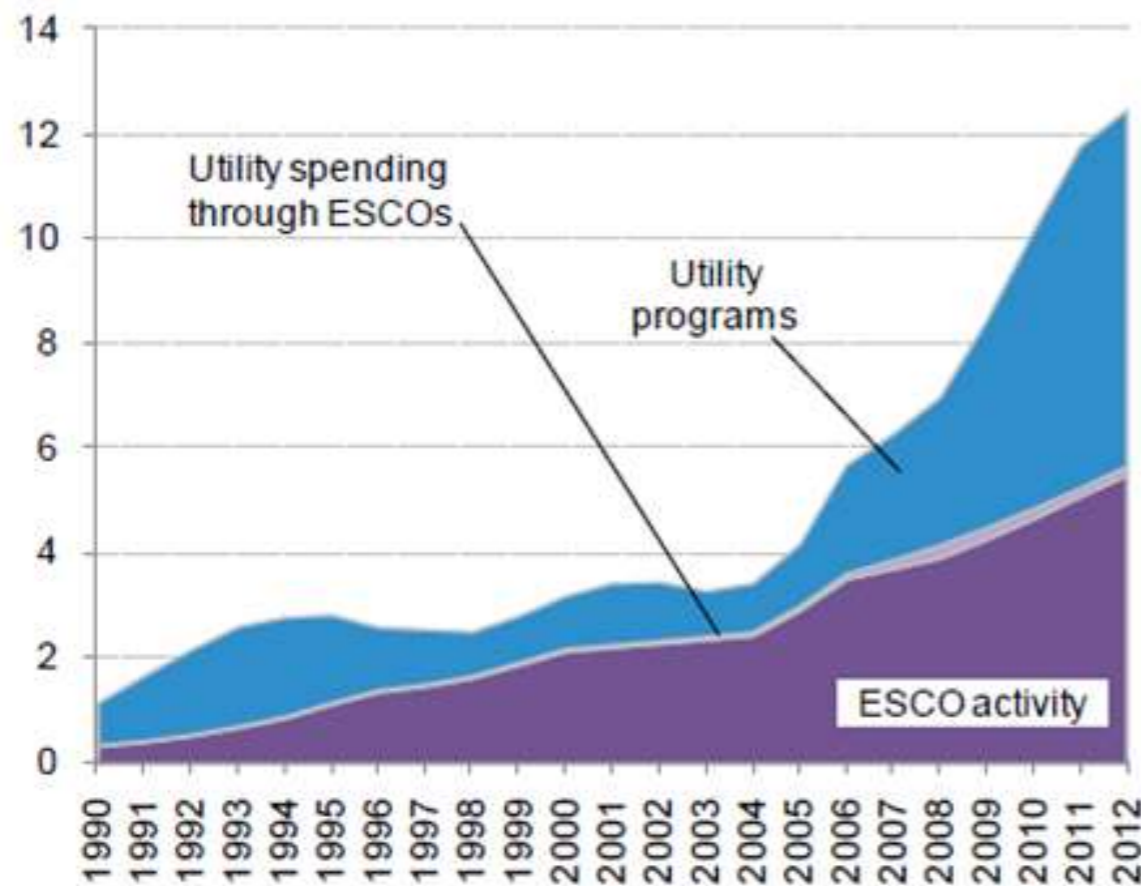
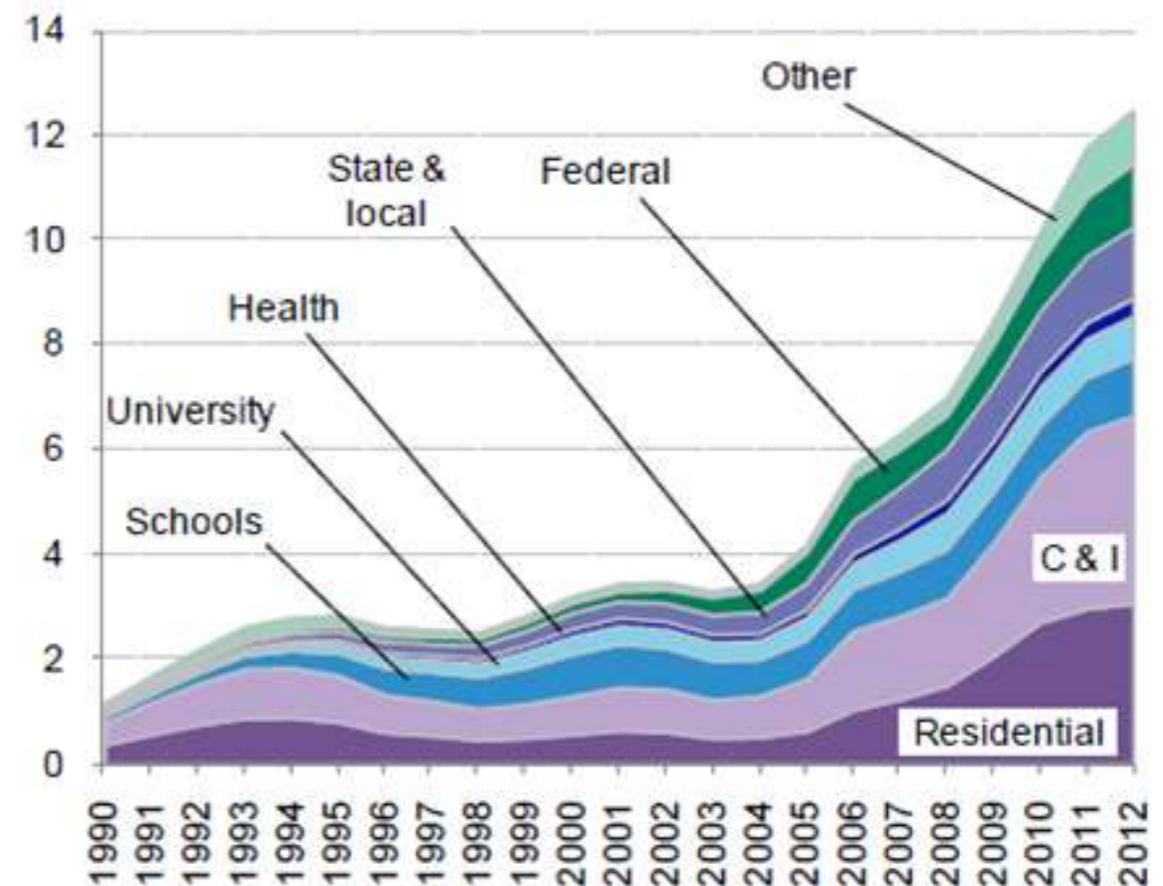


Figure 119: Investment in energy efficiency through ESCOs and utility programs, characterized by end-user, 1993-2012 (\$bn)



Source: Lawrence Berkeley National Laboratory, Stuart et al, "Current Size and Remaining Market Potential of the U.S. Energy Service Company Industry", September 2013; NAESCO; EERE; ACEEE; CEE; EIA; Bloomberg New Energy Finance. Note: 'C & I' refers to the commercial and industrial sectors. "State & local" refers to state and local government facilities.

Bloomberg New Energy Finance's 2014 Sustainable Energy in America Handbook



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Standards for Success

- Standardized, state-approved contracts + protocols + guidance
 - Program brochure
 - MOU between CEO and Facility Owners
 - ESCO selection process guidelines, when required
 - TEA and EPC contracts
 - Financing bid package
 - M&V guidelines
 - Commissioning guidelines
- A pool of pre-qualified ESCOs, providing both depth + breadth
 - Annual renewals over a five-year Base Contract period
 - Minimum requirements for annual renewal
- CEO advice and technical support
 - *Free of charge*
 - Throughout project lifecycle
 - Upon Facility Owner signing of MOU
- Private market-based financing

Is This Success Transferrable to the Private Sector?

- 2011 Competitive Award from USDOE
- Lawrence Berkeley National Lab study
- Program consultant
- Standards for Success
 - Contracts, protocols, guidance docs
 - CEO advice and technical support
 - Private market-base financing
- Incentivized participation
 - 75% (up to \$25,000) of TEA cost per participating company





Lessons Learned

Colorado Private Sector EPC Pilot Project

*Brian Carlin, Nexant Inc.
Project consultant to CEO*



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Participation

- Goal: Engage 10 companies in the EPC process
- Assessed 27 prospects for a good fit with EPC
 - 6 Owner-occupied and leased office buildings
 - 4 Medical (assisted living & hospital)
 - 3 Manufacturing
 - 3 Mountain resorts (lodging + ski operations)
 - 2 Retail space
 - 9 Miscellaneous: Multi-family, TV, bank, warehouse, community center, ice rink, car dealership, charter school and oil & gas production



Preliminary Results

- 16 companies contracted investment-grade energy audits
 - 2.1 million square feet
 - Potential annual savings identified, if fully implemented
 - 12.8 million kWh electricity
 - 450,000 therms natural gas
 - 3434 kgal water
 - \$1.45 million utility cost savings
 - Project tracking
 - 3 already under performance contract
 - 10 in decision-making mode
 - 3 Self-implementing



Lessons Learned

- Term of property hold
- Financial: ROI or payback required, timing with company budget cycle
- Incentive: Offer on scheduled basis, rather than open enrollment. Split between TEA buy-down and implementation measures. Fed \$ required DUNS and SAMS
- Business-friendly contract docs
- Clear marketing strategy
- Internal approval processes



Market Barriers

- Need for short payback
- Internal financing vs. traditional 3rd party
- Layered decision-making with competing interests in savings
- Need for business-friendly contracts



Market Benefits

- Deeper retrofits
- Initial projects leading to company scaling up adoption of EPC tool
- ESCO-client relationship building opportunities



Next Steps

Due Diligence in Permanent Program Design

Jeanna M. Paluzzi
Colorado EPC Program Manager



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Now Through December 2014:

- Continue support to the original 16 companies
 - Conversion of TEAs to EPCs
 - Self-implementation progress
- Network with commercial real estate interests
- Research: market potential, ideal client
- Tailor contracts (programmatic + legal content)
- Tailor program docs
- Make other decisions about permanent program design

Questions for You in the Private Sector Today



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State of Colorado
John W. Hickenlooper, Governor

www.colorado.gov/energy



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