

Introduction to ESPC (Energy Saving Performance Contracting)

Alaska Senate

State Affairs Committee

April 10, 2018

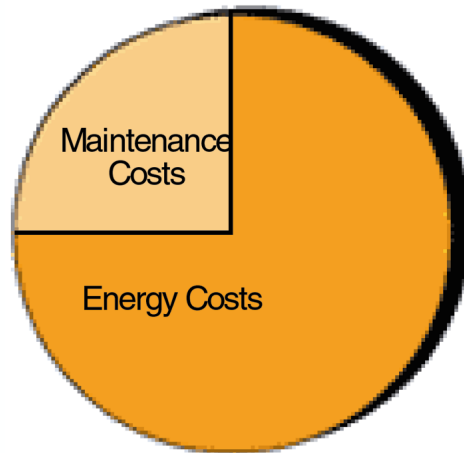
How Does ESPC Work?

- Re-purposes money spent on wasted energy and maintenance into payment stream for energy efficiency improvements
- ESCO identifies energy conservation measures
- ESCO designs, engineers and constructs measures
- ESCO guarantees savings
- ESCO pays any savings shortfalls

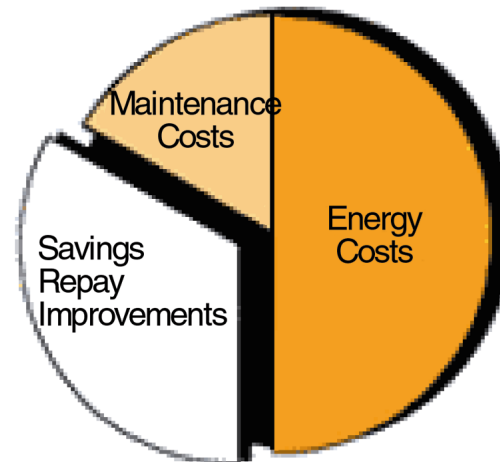
How Does ESPC Work?



Before Improvements



After Improvements



ESPC Project Services

- Preliminary Audit or Project Scoping
- Investment Grade Audit
- Engineering Design
- Project Finance Education
- Construction Management
- Commissioning
- Monitoring and Verification (M&V)
- Operations & Maintenance (optional)

Typical ESPC Measures

- Lighting
- Heating Ventilation & Air Conditioning (HVAC)
- Energy Management Systems
- Motors and Variable Speed Drives
- Building Envelope Measures
- Water Conservation Measures

Advanced ESPC Measures

- + Renewables – solar, wind and biomass
- + Distributed Generation or CHP
- + Demand Response
- + Water metering
- + Street and traffic lighting
- + Building sustainability

What Makes ESPC Different?

- Alternative to traditional “spec-and-bid” public construction
- Developed because traditional process does not meet the needs of public facilities
- Projects are best value
 - Lowest life cycle cost, not lowest first cost

What Makes ESPC Different?

- One company delivers all services
- ESCOs and building owners are partners
- ESCO takes design and construction risk
- Project costs paid from savings
- Project savings guaranteed by ESCO

Policy Mandates – Stop Waste
Need for Capital Improvements in Public Facilities
Need for Construction Jobs

WHAT DRIVES ESPC?

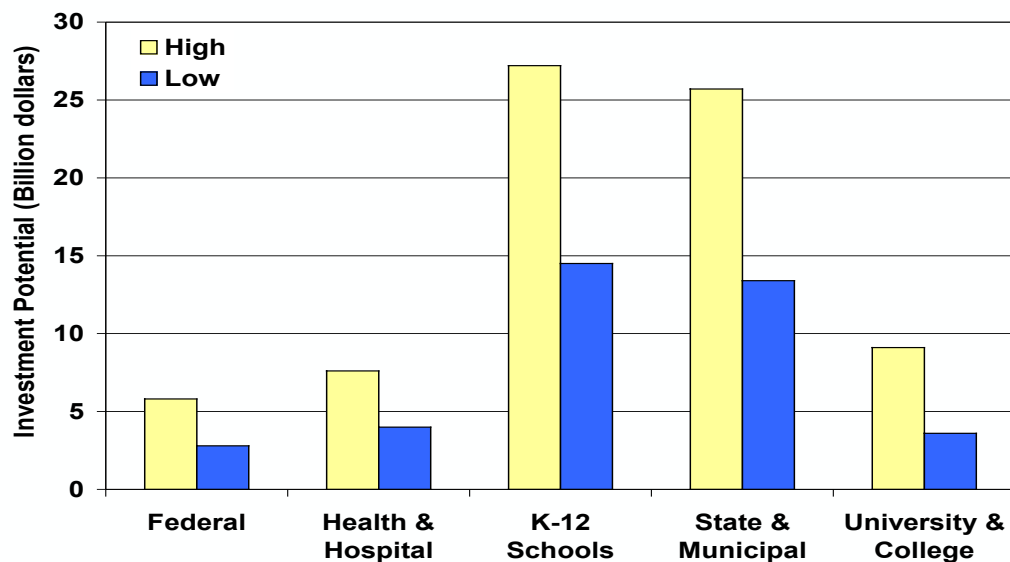
Government Mandates

- Stop government waste
- Federal mandates for 20+ years
- State mandates for 15+ years
- Local government pledges
- Broad bipartisan support
- Technical support from US DOE

Public Buildings Need Improvements

- Billions of deferred capital improvement and maintenance
 - \$250 billion for public school buildings
- Part of the national infrastructure problem
- ESPC converts wasted energy dollars to payment stream for improvements

Public Buildings EE Investment Needs



ESPC = Jobs with No New Taxes

- \$1M project \approx 9.5 direct/indirect jobs
 - 2 jobs at the ESCO company
 - 4 jobs at local subcontractors
 - 3.5 jobs at equipment manufacturers
- \$1M project \approx 12 “multiplier” jobs
- \$1M project \approx 21.5 jobs
- SB 190 \approx 2,150 jobs
- Additional jobs or job upgrades in long-term O&M