

DOE OFFICE OF INDIAN ENERGY

Energy Savings Performance Contracts (ESPC)



U.S. DEPARTMENT OF
ENERGY

Office of
Indian Energy

Strategic Energy Plan Findings

Lighting upgrades*

	One-time Investment	Annual Savings	Annual Electricity Saved (kWh)	Average Simple Payback Period
Average per community	\$28,314	\$4,091	16,727	6.9 years
Average per Building	\$6,973	\$1,007	4,452	
Total	\$198,197	\$28,636	117,088	

Source: Based on lighting upgrades completed with VEEP and EECGB grants through 2013 in Beaver, Fort Yukon, Holy Cross, Kaltag, Koyukuk, Nikolai and Shageluk. Data source: (Alaska Energy Authority, 2013).

6.9 years payback if not grant supported

How can you finance the one time investment?

*Interior Regional Energy Plan. Phase II Stakeholder Engagement. December 2015

Energy Savings Performance Contracting (ESPC)

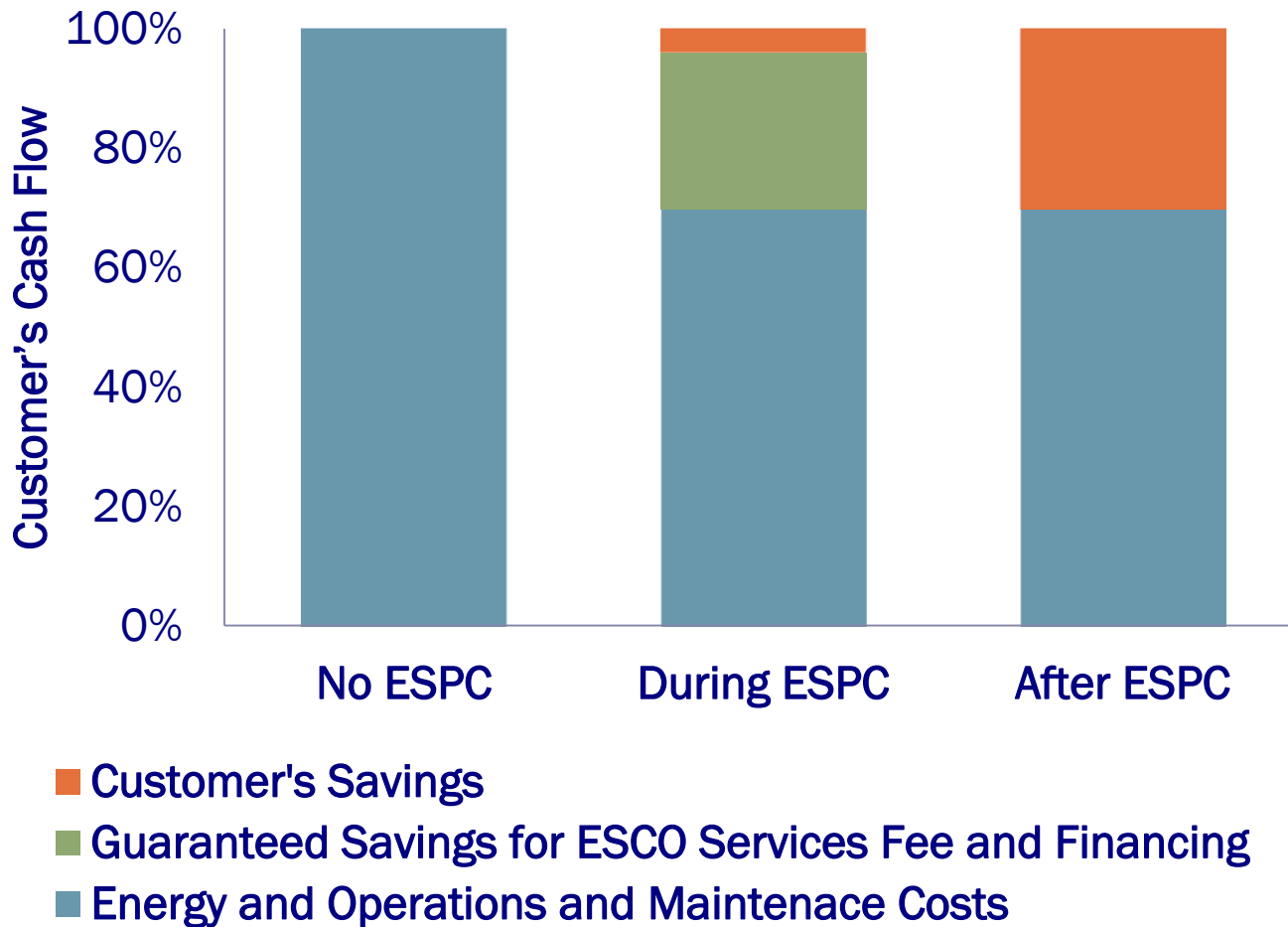
An ESPC is a no up-front cost contracting mechanism between a site customer and an energy service company (ESCO). Energy conservation measures and on-site energy generation are financed and implemented by an ESCO, which is repaid through energy savings.

Energy Service Company (ESCO)

- Identifies energy conservation measures
- Designs, engineers and constructs measures
- Guarantees savings
- Pays any savings shortfalls
- Examples of ESCOs: Ameresco, McKinstry, Chevron, Siemens, Honeywell, Tetra Tech, Johnson Controls and Trane
- Concept of Native Corporations creating ESCOs.

For full DOE Listing: <http://energy.gov/eere/femp/qualified-list-energy-service-companies>.

ESPCs Reallocate Current and Future Energy Spending



Typical ESPC Measures

- Lighting – indoor, outdoor, street lights
- Heating Ventilation & Air Conditioning (HVAC)
- Energy Management Systems
- Motors and Variable Speed Drives
- Building Envelope Measures
- Water Conservation Measures
- DG and CHP – renewable or fossil fuel
- Other Systems (kitchen, security, etc.)



Source: NREL



Source: Katie Conway & Tim Leach

Resources for ESPCs

- DOE FEMP ESPC resources at <http://energy.gov/eere/femp/resources-implementing-energy-savings-performance-contracts>
- Measurement & Verification (M&V) document templates
 - M&V plan
 - Post installation M&V report
 - Periodic M&V report
- Renewable energy screening
- Pre project analysis of cost-effective RE opportunities
 - Solar
 - Wind
 - Biomass
 - Geothermal Heat Pumps