

DES Energy Program

*Energy Performance Contracting:
Using future Energy Savings to help finance
the cost of construction*



Washington State Department of
Enterprise Services

DES Energy Program Mission

The Energy Program provides comprehensive project management and other services to help our clients reduce energy and operational costs, and reach sustainability goals.



Program Services

- Energy Performance Contracting
- Energy Life Cycle Cost Analysis
- Building Energy Benchmarking
- Building Commissioning
- Resource Conservation Management

Accomplishments:

- Completed over \$600 million in public facility efficiency projects since 1986
- Satisfied clients in over 450 public facilities
- Saved over 280 million kWh and 15 million therms
- Saved customers nearly \$32 million in annual energy costs



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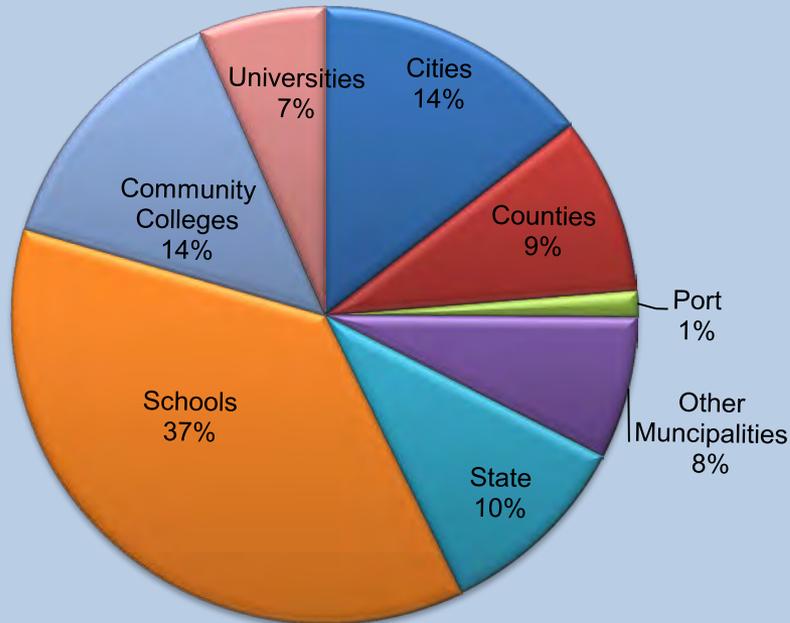
E&AS Disputes Resolution

DES Contracts and Legal



Energy Savings Performance Contracting

**DES Energy Program
Active ESPC Project Activity**



Cities	Counties	Port	Other Municipalities	State	Schools	Community Colleges	Universities
31	20	3	16	22	79	30	14

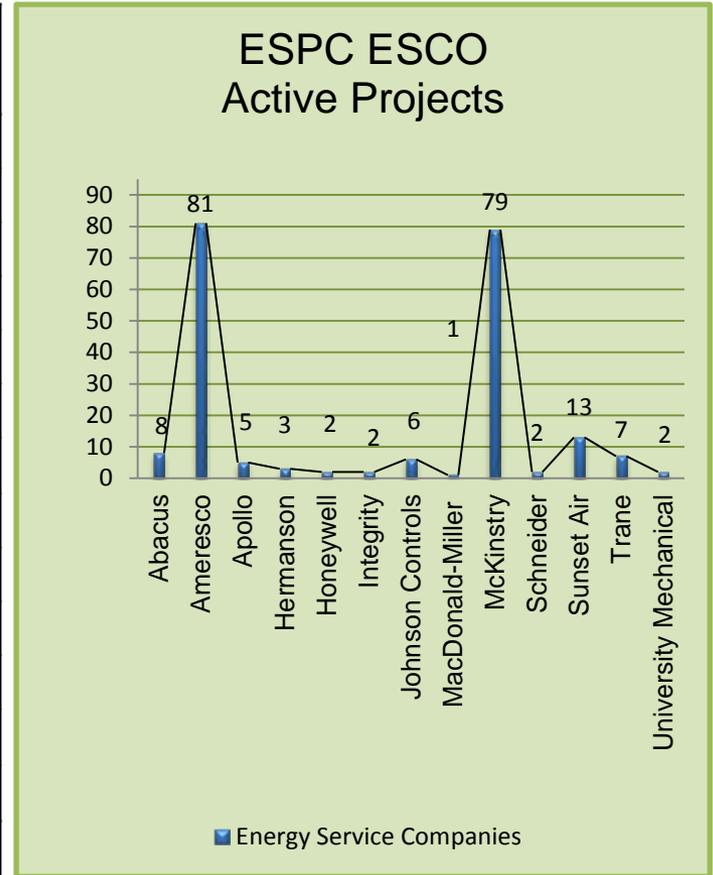
Current Program Highlights:

- Managing over 200 active projects
- \$300 Million in total project costs
- Saving customers \$8 Million annually in avoided utilities expenses



Energy Savings Performance Contractor Activity

ESCO Name	Number of Projects	Total Project Cost
Abacus	8	\$12,787,354
Ameresco	81	\$123,531,136
Apollo	5	\$8,446,144
Hermanson	3	\$3,461,321
Honeywell	2	\$3,939,531
Integrity	2	\$557,307
Johnson Controls,	6	\$23,468,458
MacDonald-Miller	1	\$957,037
McKinstry	79	\$94,535,864
Schneider	2	\$6,094,115
Sunset Air	13	\$12,375,184
Trane	7	\$10,556,664
University Mechanical	2	\$2,484,281
	211	\$303,194,396



Active Energy Service Company ESPC Activity



What does an Energy Savings Performance Contract (ESPC) do?

- Identifies, designs and constructs energy and utility conservation projects
- Leverages energy and utility dollars saved to pay for the project costs, using available funding
- Guarantees total project cost, performance and energy savings before construction starts



Who Can Use DES Energy Services Performance Contracting?

- **School Districts**
- **Cities, Counties and Ports**
- **Universities and Community Colleges**
- **State Agencies**
- **Public Hospitals**



Sequence of an ESPC Project

- 1. Project initiated by an Interagency Agreement**
- 2. ESCO selection**
- 3. Preliminary audit**
- 4. Investment grade audit**
- 5. Design and construction**
- 6. Measurement and verification**



DES Energy Team Advantage

- **Contracting and project management expertise:**
 - Public works selection is done by DES
 - DES engineers understand performance contracts
 - Contracting staff manage the paperwork
 - DES fee is set in advance



DES Energy Team Advantage

- **Experienced energy engineers:**
 - Your DES engineer is independent of the ESCO and is available to you throughout the project
 - The DES engineer is responsible to ensure the contract conditions are met
 - The DES engineer observes measurement and verification



DES Energy Team Advantage

- **Proven construction delivery method:**
 - Performance contracts guarantee first costs and energy savings
 - The more energy savings the ESCO finds, the bigger the project can be
 - Performance contracting enables the ESCO to maximize energy savings
 - Measurement and verification enables the client to have confidence in energy savings



DES Energy Team Advantage

- **Long term business relationships with Energy Services Companies (ESCOs):**
 - DES Energy contracts and procedures provide reliable conditions for ESCOs to do business
 - ESCOs maintain a good working relationship with DES Energy and our clients
 - The ESCO on your DES Energy project is looking forward to many more projects with us



Success Stories

All our completed projects are success stories, because every project saves energy that would otherwise be wasted

There is no reason to keep burning cash, when you can put it to work

Here are a few projects that were especially successful:



Case Study

- **South Kitsap School District**
 - **Project Scope:**
 - Heat recovery chiller and cooling tower for pool space, insulate two roofs, replace heat pumps at one school, lighting replacements in all facilities
 - **Benefits:**
 - Energy savings, comfort, improved lighting, and maintenance savings



Case Study (continued)

- **South Kitsap School District**
 - **Cost:**
 - \$2,873,400
 - State Treasurer loan \$1,460,000
 - Puget Sound Energy grant \$686,000
 - School District capital \$727,400
 - **Savings:**
 - \$262,300 annual savings



Financing Energy Projects

A budget neutral approach



More Examples

– City of Edmonds Library

- Improvements to the library HVAC and controls reduced energy use by +40%

– CWU

- A series of steam loop improvements and other projects have kept heating energy use flat as the campus expanded



Case Study

- City of Olympia, all city facilities
 - Lighting replacements
 - Controls upgrades
 - Boiler replacements
 - Other efficiency measures
 - Water conservation measures
- City of Olympia, small EECBG project
 - Boiler replacement



Case Study (continued)

- **City of Olympia** (sum of both facilities projects)
 - **Cost:**
 - \$2,708,368
 - State Treasurer loan \$1,614,125
 - Puget Sound Energy grant \$644,243
 - Capital \$320,000
 - Grant \$130,000
 - **Savings:**
 - \$190,824 annual savings



Thank You!

DES Energy Program

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