

# Energy Efficiency Spotlight

A shining example of how Hawaii is working to reach its goal of a 30% reduction in energy consumption by 2030.



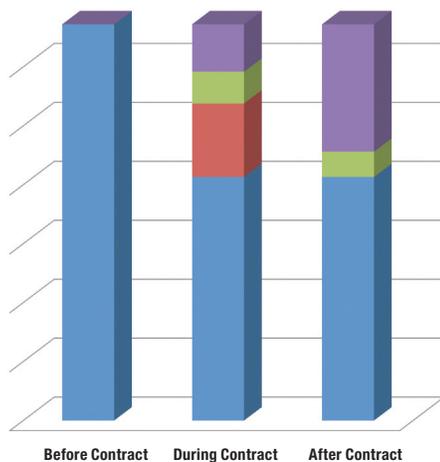
## STATE OF HAWAII GUARANTEED ENERGY PERFORMANCE CONTRACTING

State and County agencies face increasing energy costs and the need to replace or upgrade aging, inefficient, and obsolete energy- and water-consuming systems. Capital improvement and operating budgets have typically been inadequate to fund the needed upgrades.

Energy Performance Contracting (EPC) is an innovative approach to implementing energy and water efficiency projects using guaranteed energy savings to pay for the projects.

### How Energy Performance Contracting Works

Value of Performance Contracting



1. Future utility cost savings pay for the contract.
2. Savings are guaranteed by the Energy Service Company (ESCO) and can secure 3rd party financing. This means that there are no upfront capital costs for typical EPC projects.
3. Typical Energy Conservation Measures are the replacement of lighting; ventilating and air conditioning equipment; updated energy management control systems, water efficiency equipment.
4. Risks are reduced. If the savings guarantee is not met in a given year, the ESCO must pay the agency the difference between the guaranteed amount and the actual verified amount.

All performance contracts by any state agency are:

- Administered following state procurement laws.
- Reviewed and approved by the Office of the Attorney General.
- Reviewed and approved by the Department of Budget and Finance.
- Managed by departmental managers and administrators versed in the details of the project specific to their areas of expertise and experienced in contract management, finance, and administration.

Performance Contracting supports state policy:

- HRS 269-96, sets Efficiency Portfolio Standards, goal of 30% clean energy by 2030, to maximize energy-efficiency in new and existing buildings.
- HRS 196-21, directs state agencies to maximize alternative financing contracting mechanisms.
- HRS 36-41, directs all agencies shall evaluate and identify for implementation retrofitting through performance contracting.



## The Business Case for an EPC

- **Pays for itself.** Savings must be guaranteed by the ESCO
- **Uses a single procurement.** Standard practice is to purchase design, installation, and maintenance services separately.
- **Faster implementation of energy savings measures.** Usually two or less years, versus standard 5 plus years.
- **Provides financial leverage.** Comprehensive approach maximizes savings opportunities; minimizes project management. Quick payback measures leverage inclusion of expensive measures.
- **Reduces Operation & Maintenance (O&M) costs.**
- **Improves building occupant comfort.** Improves thermal comfort, ventilation rate and indoor air quality, and light levels, resulting in fewer complaints and improved health and productivity.
- **Provides training for O&M staff.** Training helps maintain the persistence of energy savings.
- **Funds Energy Performance Contract (EPC) manager.** The ESCO contract can be structured to include an independent EPC manager or consultant to oversee the ESCO.
- **No up-front funds needed.** All costs associated with the energy efficiency improvements are paid for with utility cost and O&M savings.
- **Creates jobs.** ESCOs commonly retain local subcontractors to work on a performance contract.
- **Reduces air pollution.** Reducing utility consumption of fossil fuels, electricity, and water, significantly reduces air pollution and preserves scarce resources.

### Hawaii State and County Energy Performance Contracts

Agency	Year(s)	Contract Amount	Estimated Savings Over Life of Contract
UH-Hilo	1996-2012	\$6,402,695	\$14,630,066
County of Hawaii	1997-2026	\$2,215,546	\$8,157,880
County of Kauai	1998-2012	\$525,965	\$1,205,990
C&C of Honolulu	2001-2025	\$11,900,205	\$36,066,761
Hawaii Health Systems Corporation	2002-2022	\$21,936,997	\$55,766,364
Judiciary	2003-2012	\$1,474,406	\$9,785,036
Department of Accounting and General Services Phase I	2009-2029	\$36,873,266	\$72,580,767
Department of Public Safety	2010-2030	\$25,511,264	\$57,211,112
University of Hawaii Community Colleges	2012-2032	\$34,207,392	\$37,000,000
C&C Honolulu Kailua Wastewater Treatment Plant	2013-2033	\$6,054,178	\$13,693,910
Department of Accounting and General Services Phase II	2013-2033	\$17,400,000	\$28,000,000
Department of Transportation	2013-2035	\$237,898,510	\$655,518,231
	<b>Total</b>	<b>\$402,400,424</b>	<b>\$989,614,117</b>

National recognition for Hawaii's performance contracting. For four consecutive years, awarded the Energy Services Coalition's *Race to the Top* as the national leader per capital in performance contracting projects. For more information about performance contracting, see [energy-hawaii.gov/energy-performance-contracting](http://energy-hawaii.gov/energy-performance-contracting)

Economic impacts from the energy savings (not including the equipment installation/construction) since 1996 include: (Source: DBEDT, Research and Economic Analysis Division)

- \$14.4M in state tax revenues, measured in 2014 dollars
- \$381.3M in income to households, measured in 2014 dollars
- An average of 208 jobs generated/supported each year between 1996 and 2033

The above impact is the net of the following:

1. Increase in government spending on non-energy categories
2. The decrease in electricity sales of utilities

Note: Impact of construction/equipment installation is not included in this calculation since data on financing the projects are not available at this time.

