

## Energy and Water Savings Accounts for Schools, Towns, Cities, and Counties

### *The essentials*

- Governor Jan Brewer signed AZ State Rep. Amanda Reeve's (R-6) bill HB2830 into law in April 2012.
- Before bill HB 2830 was passed, the only state public institutions authorized to enter into performance contracts for energy efficiency projects were K-12 schools (see A.R.S. §15-910.02).
- The HB 2830 additions expand performance contracting authority to public universities, towns, cities, and counties throughout AZ, and extend these institutions' performance contracting authority to include renewable energy generation projects.
- This policy provides risk management and financing solutions to government entities as they retrofit existing buildings for greater energy and water cost savings.

### *Policy background and details*

Before HB 2830 was signed into law in April 2012, Arizona statute A.R.S. §15-910.02 permitted public K-12 schools to enter into contracts with private companies to design, implement and monitor energy and water savings projects, such as building weatherization and greater lighting efficiencies. After savings projects in schools began to be implemented, stakeholders approached AZ State Rep. Amanda Reeve (R-6) with recommendations for improving and expanding the law. The recommendations that were integrated into HB 2830 focused on greater financial protections and more savings options for participating schools.

The Energy and Water Savings Accounts law (formerly HB 2830) allows schools, universities, towns, cities and counties to enter into performance contracts for energy efficiency projects and renewable energy generation with outside contractors. Performance contracting involves projects in which the contractor assumes some performance risk during the project's economic lifetime.

The private contractor for these projects is usually an Energy Services Company, or ESCO. ESCOs provide primarily energy-efficiency-related services through performance contracts, and perform two major functions for their customers: 1) designing, implementing and monitoring energy efficiency and (sometimes) energy production projects and 2) contracting with third party institutional financiers and taking on the project performance risk.

### *Project design, implementation and measurement & verification*

A school, county, town or city facilities department work with the ESCO to determine what energy and water efficiency measures are available in a facility and which of those measures are the most cost effective over a period of time. The performance contract must contain:

- a detailed list of which measures the ESCO will implement;
- cost savings guarantees from the ESCOs to ensure the schools, counties, cities and towns do not bear the burden of financial loss if the projects do not end up saving as much as projected;
- the planned cost repayment schedule;
- an independent, third-party validation of the cost savings calculations by a credentialed engineer, paid for by the ESCO.

Accurate measurement and verification (M&V) to ensure the projected savings match up with actual savings is critical to the success of these projects. Standards have evolved to ensure rigorous M&V of actual savings while balancing M&V costs with easily estimated projects. For simple, common efficiency projects, the savings are stipulated to in the contract. More specialized and complex projects require closer monitoring. For instance, upgrading light bulbs saves an easily estimated amount while a comprehensive digital control system might require closer monitoring for actual savings over time. The AZ Account Savings law implements uniformity in M&V by requiring a contractor to use either the International Performance Measurement & Verification Protocol or the Federal Energy Management Program standards. Even with the IPMVP or the FEMP standards, most parties maximize stipulated savings in the contracts in order to avoid costly, long-term M&V.

### *Guaranteed Renewable Energy Production contracts*

The Energy and Water Savings Accounts law also permits school districts (but not counties, cities or towns) to use the savings account to fund a guaranteed energy production contract. That contract must include in it: 1) a guaranteed energy price, and 2) a guaranteed energy output for 15 years, and 3) an M&V baseline in both kilowatt hours and dollars – in a sense, it is a type of power purchase agreement.

### *Financing and risk*

Under the AZ Energy and Water Savings Account law, the projects can be paid for with funds designated for purchasing fixed assets (i.e. capital investment monies). As noted above, the ESCO must take on the financial risk if the actual cost savings do not match up with the projected cost savings in the contract.

Energy efficiency projects in existing buildings can have a large impact on energy demand. Buildings consume about \$200 billion of electricity and natural gas each year. According to EPA data, commercial buildings waste at least 30% of all energy used. Energy and Water Savings Accounts can help public institutions reduce this waste. Public institutions like state and local governments are attractive ESCO

customers due to the relatively long timeframe a project takes to make back the initial expenditure – generally 10 to 15 years. Under AZ law, contracts with schools must guarantee the energy or water savings resulting from the project will pay back the full cost of the project financing within 25 years. For other government entities (counties, cities and towns), the repayment time must be within 15 years.

***More information:***

**[Energy and Water Savings Account law](#)**

A.R.S. § 9-499.16

A.R.S. § 11-254.08

A.R.S. § 15-213.01

A.R.S. § 15-213.03

A.R.S. § 15-910.02

A.R.S. § 15-1650.02

A.R.S. § 34-105

Energy Star, 2008. “Introduction to Performance Contracting.”

[www.energystar.gov/ia/partners/spp\\_res/Introduction\\_to\\_Performance\\_Contracting.pdf](http://www.energystar.gov/ia/partners/spp_res/Introduction_to_Performance_Contracting.pdf) - 2008-09-16

Energy Star, 2011. “ Performance Contracting Best Practices.”

[www.energystar.gov/ia/partners/spp\\_res/Performance\\_Contracting\\_Best\\_Practices.pdf](http://www.energystar.gov/ia/partners/spp_res/Performance_Contracting_Best_Practices.pdf) - 2011-08-12

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