

IMPLEMENTATION MODEL: NEVADA

DEVELOPING AN ENERGY SAVINGS PERFORMANCE CONTRACTING FRAMEWORK FOR PUBLIC FACILITIES IN NEVADA

Energy Savings Performance Contracting (ESPC) allows facilities to use future energy cost savings to pay for comprehensive building improvements that reduce energy and water use. For Nevada, ESPC represented an opportunity to mobilize state and local government energy efficiency projects. With support from a U.S. Department of Energy State Energy Program Competitive Award, Nevada accelerated the use of ESPC through a combination of outreach, education, and technical assistance to facilitate roughly \$100M in energy efficiency projects that resulted or will result in significant energy savings throughout the state.

Goal

\$100 M IN ESPC

To achieve significant energy savings in state agencies and local governments in Nevada by signing \$100 million in Energy Savings Performance Contracts (ESPC).

Barrier

LACK OF FRAMEWORK

Lack of a statewide framework for facilitating the adoption of ESPC.

Solution



The Nevada Governor’s Office of Energy (NGOE) created the Public Facilities Retrofit Program in 2012, which promoted ESPC as a vehicle for energy efficiency and created an infrastructure to accelerate the adoption of ESPC by state agencies and local governments.

Outcome



Since 2012, Nevada has seen a marked increase in the use of ESPC in state agencies and local governments. Prior to the creation of the Public Facilities Retrofit Program in 2012, only a few local governments had pursued ESPC, and only two state agencies had undergone an ESPC project in ten years. From 2012 to 2015, local governments in Nevada initiated two ESPC projects for a total value of approximately \$32.6 million. In 2016 and 2017, incentives were awarded for five additional projects to local governments and school districts, valued at approximately \$32.7 million. One project with a local school district is currently in development, with a value of \$12 million, and the state is anticipating that three more major projects will be initiated in 2018 and 2019 with a value of approximately \$26.3 million. Together these projects exceed the state’s goal of \$100 million in ESPC.

POLICIES

For nearly ten years after legislation enabled ESPC for state agencies and local governments in 2003, only a small number of local governments had undertaken ESPC projects, and no state agency had initiated an ESPC in years. Not only did state agencies and local governments lack awareness of the ESPC process and its benefits, they also perceived substantial risk in investing in ESPC. The need for energy savings projects, however, remained. Over time, legislation in Nevada spurred state and local government action to increase energy efficiency, and provided NGOE with flexibility in funding to help facilitate energy efficiency upgrade projects.

In 2005, Nevada enacted [NRS 701.215](#), which required NGOE to prepare a plan for reducing grid-based energy purchases for state-owned buildings by 20% by the end of 2015 (compared to the 2005 baseline).



[NRS 701A.450](#), enacted in 2009, provided NGOE an opportunity to make further progress. It authorizes the Director of the NGOE to use funds in the Renewable Energy Account (REA) to reduce either the cost or use of electricity. The REA is supported by the Nevada's [Renewable Energy Tax Abatement Program](#). This statute paved the way for Nevada's highly successful Performance Contract Audit Assistance Program (PCAAP).

Another statute, [NRS 332.362](#) in 2013, incentivized ESPC in Nevada schools. It requires school boards to explain why proposed capital projects exceeding their designated threshold would not be part of an ESPC project.

Increased awareness of ESPC in Nevada supported policy development during the 2017 legislature as state policy shifted to make performance contracts more feasible for state agencies. The passage of AB 160, added to NRS Chapter 273, extends the maximum term for payback from 15 to 20 years for performance contracts entered into by state agencies. This extension will make more projects attractive and possible to pursue.

PROCESS – PROGRAM DESIGN



Assembling the Project Team

NGOE recognized the importance of assembling an experienced team devoted to expansion of ESPC in Nevada, and therefore recruited the Energy Services Coalition (ESC) and project managers from three local governments, all of whom had previously completed successful ESPC projects. ESC, a public private partnership dedicated to promoting and advocating for ESPC, provided a foundation for NGOE to build partnerships with the energy service company (ESCO) community. The project managers, representing the Douglas County School District, the City of Reno, and the City of Henderson, assisted with outreach and were eager to share their successes.

Award subrecipients under the NGOE's DOE award, including consultants Celtic Energy, Inc., 9Kft Strategies in Energy, the Rocky Mountain Institute, and the Washington State Energy Office (housed within the state's Department of Commerce), rounded out the project team. NGOE led the marketing and outreach effort, while the Rocky Mountain Institute provided materials for workshops and shared their expertise with the "Deep Retrofits" approach to ESPC. Washington provided instructors to help with ESPC education and outreach, and shared its expertise for creating a self-funded ESPC program.

NGOE's Energy Program Manager provided day-to-day supervision of the project team. For sustaining the program after the conclusion of the DOE award, NGOE received budget approval to create a new position. NGOE hired an Energy Efficiency Specialist in 2014 to help with ESPC outreach, education, and implementation. The Energy Efficiency Specialist spent 80% of his time during the start-up phase and now spends roughly 10% of his time advancing ESPC with outreach and another 30% providing technical assistance to initiate projects at both the state agency and local government levels. The Energy Efficiency Specialist became a permanent position in the NGOE and still has a primary focus of encouraging energy efficiency projects and implementing the state owned building benchmarking program.

Research

The first step to designing Nevada's Public Facilities Retrofit Program was research. The project team reviewed successful ESPC programs in other states known for successful, longstanding ESPC programs, namely Colorado, Washington, and North Carolina. NGOE sought to identify specific best practices that could be incorporated into the designs for their approach. With ESC's help, Nevada decided on five of the [10 Key Attributes for Guaranteed Energy Savings Performance Contracting Program Readiness](#) for states with high levels of ESPC previously identified through DOE-funded ESC research. The five best practices NGOE identified as most compatible with Nevada's circumstances included:

- Gaining the governor's support;
- Creating standardized templates and model documents to successfully guide the procurement and contracting process for state agencies and local governments;
- Prequalifying ESCOs;
- Re-activating the Nevada state chapter of the ESC; and
- Spotlighting local success stories during outreach to local governments and state agencies.

Developing a Strategic Outreach Plan

While NGOE incorporated these best practices into the design of the Public Facilities Retrofit Program, further research revealed that ESPC outreach to state agencies and local governments would require different approaches. NGOE developed outreach strategies tailored to each group, since they are subject to different legislative requirements, namely:

1. State agencies can only use prequalified ESCOs, whereas local governments can accept bids from any company that meets the requirements in NRS 332.352, and these do not have to be prequalified ESCOs .
2. When the project was initiated, the financing period for state agencies was a maximum of 15 years, but for local governments, the maximum was 25 years.
3. NGOE is only required to provide outreach and education to local governments on ESPC, not to state agencies.

The project team approached local governments and state agencies with ESPC communication strategies specifically tailored for each group. Local governments were engaged through workshops, webinars, and other mass communications channels, whereas state agencies were approached on a one-on-one basis — with detailed guidance for individual policymakers in each agency.

PROCESS – IMPLEMENTATION

The project team initially directed its attention to local governments, since their projects could likely be completed in less time. Once several had been completed, the project team turned its focus to state agencies, and used local government successes to demonstrate the benefits of the process. Nevada's steps to success included:

1 Marketing ESPC to Local Governments

The project team developed a contact list of more than 700 local government officials across the state to target for marketing, education, and outreach efforts. These contacts, which included cities, counties, school districts, other municipal districts, utilities, non-profit organizations, and ESPC stakeholders, received a newsletter and were invited to participate in two webinars and three workshops on ESPC. NGOE took the lead in marketing and promoting ESPC at several conferences targeting professionals associations, such as the Nevada Association of Cities and Counties, Nevada Professional Facilities Managers Association, and the Association of Energy Engineers. In order to establish relationships with the ESCOs and encourage their participation, NGOE reactivated the Nevada chapter of the ESC. ESC is comprised of a network of experts from a wide range of organizations – including ESCOs. As a public private partnership, ESC opens up lines of communication between the public and private sectors, and allows for peer sharing, consensus support, and broad based problem-solving. NGOE also appointed a representative to ESC's national board of directors and the Nevada chapter is co-hosting the ESC's Annual Conference in 2017.

Videos highlighting successful ESPCs enhanced NGOE's marketing efforts. NGOE coordinated the production of a [marketing video highlighting the City of Henderson, Nevada](#). Henderson successfully executed energy efficiency retrofits through an ESPC, which included street lighting, building lighting, building boilers, and traffic signals. The energy efficiency upgrades have resulted in annual energy savings of 79,945 million British thermal units and annual energy cost savings of \$1.9 million. The project team distributed the video via media outlets and used them for presentations.

The project team also created a video of one of its workshops conducted for ESCOs and facility managers. The video, entitled [Deep Retrofits](#), provides information on how to achieve 50% or more energy savings.

NGOE launched its ESPC [webpage](#) in early 2012 to house all of the resources created under the Public Facilities Retrofit Program and make them readily available to anyone interested in EPSC. The webpage features the videos; Request for Qualifications (RFQs) from the State of Nevada

and several local governments; application information for the PCAAP, described in detail below; links to workshop presentations; links to webinars, and general ESPC information.

2 Launching PCAAP

In 2014, NGOE developed the PCAAP to persuade more local governments and state agencies to invest in ESPC. Through the PCAAP, NGOE reimburses state agencies and local governments the cost of their investment-grade energy audit, up to ten cents per square foot, once they sign a contract to proceed with an ESPC. Although the reimbursement offered through the PCAAP is relatively small compared to the total cost of most retrofits, local governments still stood to gain a financial benefit and therefore took advantage of the assistance.

PCAAP, which the NGOE director created using funds in Nevada’s REA, became the catalyst for nearly all local government ESPC initiated since 2014. NGOE makes a point of promoting PCAAP at meetings with state agencies or local governments when it introduces the idea of ESPC..

PCAAP not only stimulates interest in ESPC, it also incentivizes more comprehensive projects. Nearly all of the local governments that initiated the first ESPC projects under the Public Facilities Retrofit Program noted that the desire to “take advantage” of PCAAP played a role in the decision making process. By illustrating how PCAAP could affect an ESPC project, an ESCO was able to interest a Nevada water reclamation district to expand its project, installing maximum efficiency equipment and doubling the savings.

3 Facilitating State Agency Engagement

One of the best practices the project team identified in its early research was gaining the governor’s support for ESPC. Prior to the Public Facilities Retrofit Program, ESPC at state agencies had stalled, and only one project had been completed. One of the barriers state agencies faced was an outdated qualified ESCO list. Only one ESCO was active in the state, performing local government projects only, and other ESCOs were operating under the impression that the ESCO market in Nevada was not viable. The project team sought to gain the governor’s support to overcome the barrier.

NGOE briefed the governor on a roughly \$150,000 PCAAP audit reimbursement the City of Reno had recently received, and made him aware that state agencies would not be able to take advantage of these reimbursements until the qualified list of ESCOs was updated.

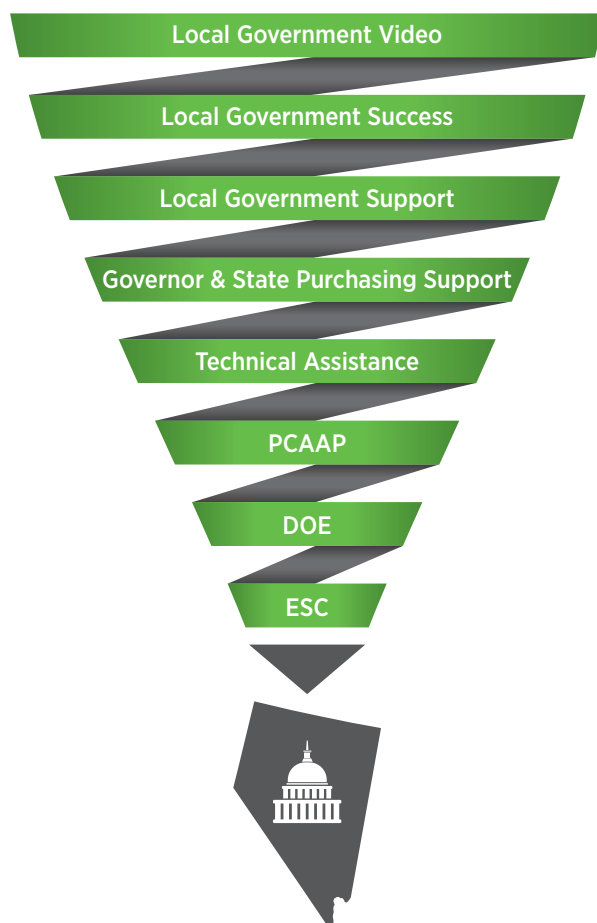
NGOE’s briefing convinced the governor to request the Public Works Division to update the qualified ESCO list,

which had expired. Nevada Public Works updated the qualified ESCO list first in November 2014 and again in November 2015. The governor also issued a statewide “Silver State Spotlight” article, sent to every state employee, touting the project team’s ESPC efforts. This article generated a lot of interest, and facility managers at various state agencies began reaching out to NGOE for more information about ESPCs.

4 Technical Assistance

NGOE engaged two energy consulting companies to provide technical support to ESPC candidates through development and implementation of the ESPC project. NGOE and its consultants provided one-on-one technical assistance for state and local government decision makers to ensure that they had assistance and templates, especially up-front, as they were drafting Requests for Proposals (RFPs) and soliciting support from their leadership. The project team found the most effective way to advance ESPC is to achieve “buy in” from decision makers early on, and by providing templates and examples documents, such as RFPs, to make the process more straightforward and manageable.

OVERCOMING ROADBLOCKS TO Performance Contracting IN STATE AGENCIES





OUTREACH

NGOE took a strategic approach to ESPC outreach. Although some outreach tactics, such as the promotion of success stories and videos, were applied to both local governments and state agencies, the project team's methods varied significantly between the two groups.

NGOE took a broader approach to reaching local governments, focusing on workshops, emails, and industry group meetings to stimulate interest among city, county, and school district decision makers. Peer-to-peer sharing in this process, including local government partners, who spoke directly about their successes with ESPC, was particularly effective.

NGOE's tailored approach to state agency outreach placed significant emphasis on establishing a positive relationship with State Public Works in addition to enlisting the state Purchasing Division as a partner. NGOE needed cooperation from both entities to achieve the goal of updating the prequalified list of ESCOs for use by state and local agencies. NGOE also gave more individual attention to the state agencies when providing guidance and technical assistance.

Measuring Success

During the period of performance, NGOE made Quarterly Cabinet Reports to the Governor on progress. NGOE collected the following metrics for the Public Facilities Retrofit Program:

NUMBER OF PCAAP
AWARDS DISBURSED

ESPC VALUE

ESTIMATED ANNUAL
SAVINGS

Following the completion of the DOE State Energy Program Competitive Award, NGOE implemented tracking and benchmarking of 400 of the state's largest buildings using an Energy Management Information Software (EMIS) platform. The platform is capable of organizing, tracking, benchmarking, analyzing, and reporting all usage and costs related to energy and water consumed and purchased by the state. The platform also supports reporting progress towards energy reduction goals and provides the Governor and Legislature with timely and accurate data. Readily accessible benchmarking and building performance data helps support energy conservation and efficiency initiatives, such as ESPC.

The Public Facilities Retrofit Program resulted in seven local government ESPC, and three more potential projects, including one at a state agency.

Nevada dramatically expanded the ESPC landscape over a short period of time. For nearly ten years prior to the Public Facilities Retrofit Program, there had been only one active ESCO and very few ESPCs completed – none had been initiated by a state agency in years. NGOE produced lasting changes to enable and facilitate seven local government and countless future ESPCs. The Public Facilities Retrofit Program has positioned Nevada for significant energy savings from completed projects and revived the desire of local and state agencies to pursue ESPCs.

Outcomes

The Public Facilities Retrofit Program resulted in seven local government ESPC, and three more potential projects, including one at a state agency.

LOCAL GOVERNMENT	ESPC Value	Estimated Annual Savings
Truckee Meadows Water Reclamation Facility	\$25 million	\$550,000
Clark County Water Reclamation District	\$7.5 million	\$36,000
Clark County School District	\$19.6 million	\$2.3 million
City of Henderson	\$2.8 million	\$375,000
Carson City Public Works	\$4.1 million	\$180,500
Carson City School District	\$6 million	\$190,000
Washoe County School District	\$12 million	\$456,000
City of Henderson #2	\$600,000	\$40,000
Clark County School District #2	\$20 million	\$2.3 million

STATE AGENCY	ESPC Value	Estimated Annual Savings
College of Southern Nevada	\$6.1 million	\$380,000



TOOLS AND RESOURCES

[NGOE website dedicated to ESPC](#)

[NGOE video on Deep Retrofits](#)

ESPC webinar materials

[City of Henderson performance contracting success story video](#)

[City of Henderson ESPC retrofit fact sheet](#)

2014 Silver State Spotlight, Nevada Governor Sandoval (attached)

[Douglas County School District Success Story](#)