



SALT LAKE CITY'S EXECUTIVE ORDER FOR ENERGY MANAGEMENT OF CITY FACILITIES

SOLUTION OVERVIEW

As part of the Better Buildings Challenge, Salt Lake City committed to improving the energy use intensity of its municipal buildings portfolio by 20 percent by 2025 (from a 2012 baseline). In order to achieve this ambitious goal and other energy objectives, the City sought to align underlying goals for all City facilities and to strengthen and unify facility managers' approaches to implementing energy-efficiency practices. To this end, in January 2015, Salt Lake City issued an Executive Order titled "Comprehensive Energy Management of Salt Lake City Facilities." The goal of the Executive Order is to implement a holistic energy management strategy across the entire City organization that maximizes energy efficiency best practices within City facility operations and minimizes carbon dioxide emissions and particulate pollution from City-owned buildings. A key strategy embedded within the Executive Order is the requirement that each department develop an energy management plan with standardized best practices, which is reviewed annually by the Sustainability Department Director and Sustainability Program Manager. This process drives the adoption of energy efficiency best practices and identifies where these practices have not yet been implemented.

ORGANIZATION TYPE

Local Government

BARRIER

A large portfolio of buildings overseen by numerous managers, making it difficult to unify energy management priorities and implementation strategies across City facilities

SOLUTION

A clearly-defined energy management policy, enforced by an Executive Order, which prioritized energy-efficiency best practices for all City-owned buildings

OUTCOME

The Executive Order improved the implementation and coordination of energy management practices across City facilities

PROCESS

Salt Lake City developed the structure of the Executive Order through a consensus process across departments. The following elements were incorporated into the planning and content of the Executive Order:

Meetings with Sustainability Team

The City's sustainability staff convened numerous meetings with officials from all City departments to build consensus around energy efficiency best practices and what responsibilities facilities staff could feasibly meet within specific timelines. These consensus-building meetings informed the ultimate structure of the Executive Order. Both the Mayor and City Council were required to approve the language and obligations outlined in the Executive Order.

Energy Management Plans

The Executive Order required each department to develop internal Departmental Energy Management Plans by September 2015. City departments—Public Services, Public Utilities, and the Airport—developed their Energy Management Plans in-house, with the exception of the Airport, which employed a consulting firm. The plans outlined each departments' forthcoming energy-efficiency efforts as well as renewable energy investments and other sustainability measures. They are submitted on an annual basis to the Salt Lake City Sustainability Department for review by the Department Director and Sustainability Program Manager. Key metrics are published annually in the City's benchmarking and greenhouse gas emissions report.

Certification & Training of Facilities Managers

The Executive Order also requires that City facilities be managed by staff that have received building operator certification training from an industry-recognized building operator program approved by a City Steering Committee. The Department of Facilities is responsible for setting aside a budget for this training, estimated to cost about \$1000 per person, for an average of two building managers per department, per year.

Implementation and Compliance

The City's ongoing compliance with this Executive Order and its objectives is maintained through:

- Regular meetings of an appointed energy management steering committee comprised of representatives responsible for the development of Energy Management Plans for their respective department operations.
- Energy management plans developed by each department, updated annually, and submitted to the Sustainability Department for review by the Sustainability Department Director and Sustainability Program Manager.
- A full-time Commissioning Agent responsible for prioritizing City facilities that can best benefit from a retro-commissioning process and execution of those projects on an ongoing

basis.

- A requirement that energy management plans include the following best practices:
 - Benchmarking of energy and water use data
 - Identification of energy-saving opportunities
 - Standardized energy-efficiency operations
 - Building operator training
 - Employee engagement
 - Prioritization of renewable energy opportunities
 - Full public disclosure of City building energy performance
 - New construction or building renovations must meet the City's Net Zero and LEED Gold standards.**

Summary Timeline of Executive Order Implementation, and Compliance

January 16, 2015: Salt Lake City issued Executive Order.

April 1, 2015: City Administration appointed a representative from each City department to serve on the Energy Management Steering Committee.

September 30, 2015: Steering Committee representatives from each City department appointed by the Administration, with the responsibility for the development of Energy Management Plans for their respective department operations.

December 31, 2015: The City established a requirement that base building systems for all tier 1-3 facilities be operated by an individual who holds a certificate from an industry-recognized building operator program.

Ongoing: Annually each September: Steering Committee members required to complete an annual progress report on the actions specified in their respective operation's Energy Management Plans. Metrics from each Steering Committee's annual report inform the publication of the City's annual energy benchmarking and emissions inventory report.

***Net Zero-Energy Building* means a building that balances its annual energy use with renewable energy. See [Executive Order](#) for additional details. *LEED Gold* means a Gold level certification for Leadership in Energy and Environmental Design (LEED) according to current specifications developed by the U.S. Green Building Council.

POLICIES

The City used an [Executive Order](#) issued in January 2015 to implement its energy management policies. The Executive Order includes the following key requirements:

- Establish by April 1, 2015 an Energy Management Steering Committee responsible for ensuring implementation of the Order and assisting City departments in compliance;
- Develop by September 30, 2015 Energy Management Plans to be updated annually for each

participating City department;

- Publish on an annual basis energy performance information for City facilities; and
- Design new and renovated buildings to meet City Net Zero and LEED Gold requirements.

By implementing these energy management policies in the form of an Executive Order, compliance was made compulsory for each City department.

OUTREACH

A major motivation for implementing these energy management best practices in the form of an Executive Order is the very public nature in which Executive Orders are announced. When Salt Lake City issued the energy management Executive Order, it was announced publically through an official press release, as well as distributed throughout the City organization via emails to all City employees. Additionally, the Executive Order was promoted through the City's SLC green blog, and by the organizations Buildings Owners and Managers Association of Utah and Utah Clean Energy. This high level of publicity added a greater level of accountability to the City for meeting these policies.

MEASURING SUCCESS

Each City department—Public Services, Public Utilities, and the Airport—submits success metrics as part of annual reporting and these metrics are collected and recorded in the Energy Management Annual Tracking Template. The Energy Management Tracking Template divides each reporting Department's updates into two sections: the Energy Project Implementation Tracking Form and Executive Order Compliance Tracking: Audits & Commissioning.

The Energy Project Implementation Tracking Form records projects from the previous year by name, and includes the following fields:

- Energy Measures Implemented
- Facilities Impacted
- Timing
- Upfront Cost
- Annual Expected Energy Savings
- Annual Expected Cost Savings

The Executive Order Compliance Tracking: Audits & Commissioning records auditing or commissioning efforts from the previous year, and includes the following fields:

- Activity Type
- Facilities or Staff Impacted
- Timing
- Upfront Cost
- Annual Expected Energy Savings
- Annual Expected Cost Savings

OUTCOMES

The Executive Order "Comprehensive Energy Management of Salt Lake City Facilities" improved

the implementation and coordination of energy management practices across Salt Lake City facilities. Through more robust energy planning and collaboration across City departments, the City has been able to more effectively adopt energy efficiency best practices across its operations and identify areas for further improvement.

TOOLS AND RESOURCES

The [Energy Management Annual Tracking Template](#) divides each reporting Department's updates into two sections: the Energy Project Implementation Tracking Form and Executive Order Compliance Tracking: Audits & Commissioning.

