

Comprehensive Energy Management of Salt Lake City Facilities

EFFECTIVE DATE: January 16, 2015

SUBJECT: Requiring City staff to evaluate and implement energy-related best practices for all facilities owned and operated by Salt Lake City Corporation.

DISTRIBUTION: ALL DEPARTMENTS

Section 1: BACKGROUND.

Salt Lake City is committed to the efficient use of resources and leading by example through our municipal operations. The City owns and operates numerous facilities and buildings, many of which are significant contributors to our emissions footprint and ongoing City operational costs. This Executive Order identifies and requires the implementation of energy management best practices for these facilities and buildings.

All City departments can be positive contributors to internal and community-level energy goals and are subject to the rules specified in this Order. The Order addresses all aspects of City operations that require the use of electricity, natural gas or other energy resources in order to operate buildings, facilities or other fixed assets other than fleet and mobile equipment.

Through implementation of this Executive Order, Salt Lake City Corporation will enhance interdepartmental coordination, reduce energy waste and better ensure the responsible use of City resources. By using less energy and simultaneously deploying clean, renewable energy resources the City will mitigate pollution associated with regional air quality issues and cross-cutting challenges such as climate change.

Section 2: DEFINITIONS.

"Administration" means the Office of the Mayor.

"Base building systems" means the systems or subsystems of a building or facility that use or distribute energy and impact energy consumption.

"Benchmarking" means the act of measuring electric, natural gas or other energy data over a consecutive 12-month period. This allows energy performance to be compared versus a beginning annual baseline and a group of peers. Total energy consumption shall not include separately metered uses that are not integral to facility operations, such as broadcast antennas and electric vehicle charging stations, as determined by the Steering Committee.

"Energy audit" or "audit" means a systematic process of identifying modification or improvement opportunities for base building systems. An energy audit could lead to alterations of such systems and the installation of new equipment, insulation or implementation of other strategies to optimize energy performance of the facility.

"ENERGY STAR score" means the 1-100 numeric rating generated by the Energy Star Portfolio Manager tool.

"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.

"Net Zero-Energy Building" means a building that balances its annual energy use with renewable energy. According to the City's Net Zero goal for new construction and major renovations, adopted in January 2013,

this is accomplished by achieving net zero carbon emissions through energy demand reductions plus onsite or offsite renewable energy development, in addition to the purchase of Renewable Energy Credits.

"Retrocommissioning" refer to a systematic process for optimizing the energy efficiency of existing base building systems through the identification and correction of deficiencies in such systems, including but not limited to repairs of defects, cleaning, adjustments of valves, sensors, controls or programmed settings, and/or changes in operational practices.

"Re-tuning" means a systematic process to identify operational problems by leveraging data collected from the building automation system and correcting those problems at no-cost or low-cost.

"Tier 1 City facility" means a facility between 3,000 and 21,999 gross square feet in total combined floor area that is owned and operated by the City and for which the City pays all or part of the annual energy bills

"Tier 2 City facility" means a facility between 22,000 and 49,999 gross square feet in total combined floor area that is owned and operated by the City and for which the City pays all or part of the annual energy bills;

"Tier 3 City facility" means a facility of 50,000 or more gross square feet in total combined floor area that is owned and operated by the City and for which the City pays all or part of the annual energy bills;

"Other Tier City facility" means a physical system or component owned and operated by the City that consumes a significant amount of energy, roughly equal to or greater than a tier2 facility, that is not larger than 2,999 gross square feet in combined floor area. This can include water-related and other industrial systems or components.

Section 3: REQUIREMENTS.

Section 3.1: Energy Management Steering Committee.

No later than April 1, 2015 the Administration shall appoint representatives to an Energy Management Steering Committee (Steering Committee) from, at a minimum, each of the following departments: Airport; Public Services; Public Utilities. The Steering Committee will be responsible for ensuring implementation of the requirements noted in Sections 3.1 through 3.4. The Steering Committee shall be chaired by the Director of the Division of Sustainability and the Environment or his/her designee and represented departments shall provide staff support as necessary. The Steering Committee, with oversight from the Administration, shall develop rules, templates and guidance to assist departments in complying with this Executive Order.

Section 3.2: Energy Management Plans.

Each department participating in the Steering Committee will be responsible for developing an Energy Management Plan (Plan) for their respective operations by September 30, 2015. These Plans shall identify energy-related opportunities and an associated management strategy to ensure successful deployment of the activities identified therein. The Plans will include both current energy management activities and near- and long-term facility energy management strategies and shall be updated on an annual basis. The Plan shall also include a summary report on the energy management strategies and efficiency projects implemented during the previous year, including the associated costs and expected energy and emissions savings.

Each Plan will identify budgetary needs, where applicable, required to accomplish the identified energy management strategies. Departments completing a Plan will be responsible for sharing results with the Steering Committee on an annual basis. Measures included within the Plans must address, but not necessarily be limited to, the following activities:

- a. **BENCHMARKING:** Annual benchmarking of the energy consumption of all Tier 1-3 and Other Tier City facilities through an industry-recognized tool such as ENERGY STAR Portfolio Manager or comparable tools approved by the Steering Committee.
- b. **ENERGY SAVING OPPORTUNITIES:** Identification and documentation of energy-saving opportunities for all Tier 2-3 City facilities and Other Tier City facilities, where appropriate. This will include the establishment of an energy audit program or other protocols necessary to prioritize energy-saving projects. This process should occur at least every five years for related facilities;
- c. **EFFICIENT OPERATIONS:** Development of guidelines to ensure that base building systems and controls for all Tier 2-3 City facilities are being operated to meet energy efficiency standards. This should include a strategic plan for retrocommissioning at least every ten years plus continuous re-tuning. Any exceptions to this requirement must be approved by the Steering Committee;
- d. **BUILDING OPERATOR TRAINING:** Development of guidelines for building operator training related to energy management. By December 31, 2015, the base building systems of all Tier 1-3 City facilities shall be operated by, or be under the supervision of, an individual who holds a certificate from an industry-recognized building operator program approved by the Steering Committee;
- e. **EMPLOYEE ENGAGEMENT:** Development of strategies to engage City employees and ensure their awareness of energy-saving goals and participation to help achieve related targets;
- f. **RENEWABLE ENERGY OPPORTUNITIES:** Identification and prioritization of renewable energy opportunities that can offset the energy impacts of City operations.

Section 3.3: TRANSPARENCY OF FACILITY ENERGY PERFORMANCE.

Energy performance information, including an ENERGY STAR Score if available, for all Tier 1-3 City facilities shall be made available to City employees and the public. These details will be published on an annual basis pursuant to rules developed by the Steering Committee.

Section 3.4: ENERGY EFFICIENT DESIGN FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS.

New City facilities and City facilities undergoing a major renovation must be designed to meet published City Net Zero and LEED Gold requirements. Details, including affected projects and scope of these requirements along with exemptions, are outlined within Executive Orders adopted January 19, 2006 for LEED design and January 8, 2013 for Net Zero Energy. Each calendar year the Net Zero status of affected facilities must be internally verified and described within the Energy Management Plan.

Section 4.0: COORDINATION WITH OTHER EXECUTIVE ORDERS

This Executive Order is additive to the Net-Zero Executive Order, LEED Ordinance 18 Chapter 95, City Environmental Policy 6.01.01 and all previous Orders affecting City facilities.

Section 5.0: RULES AND EXEMPTIONS

The Steering Committee, with oversight from the Administration, shall oversee rules and exemptions related to this Executive Order.

Signed: Mayor Ralph Becker/1/16/2015


