

Legislation Text

File #: 15-22535, Version: 1

Sustainable Facilities Policy Revisions

Action

A. Approve revised Sustainable Facilities Policy, and

B. Authorize the City Manager to approve updates to the policy as needed to maintain alignment with the city's 2030 SEAP goals.

Staff Resource(s):

Sarah Hazel, Office of Sustainability & Resilience

Explanation

- As part of ongoing Strategic Energy Action Plan (SEAP) implementation, the Sustainable Facilities Policy (SFP) was updated in 2021 and calls for periodic review to bring the policy in alignment with SEAP goals by integrating new technology and ongoing experience.
- The revised SFP is intended to direct city departments to design, construct, and operate city facilities in a manner aligned with the city's 2030 SEAP goal to have all city facilities and fleet be fueled by 100 percent zero carbon energy.
- The focus of the revised SFP enhances the 2021 policy revision, with the most notable change in building decarbonization, including the requirement that all new buildings be powered by electricity.
- A decarbonization study from the Department of Energy's National Renewable Energy Laboratory found that electrification of buildings in the absence of any additional power sector carbon policy can result in a 41 percent reduction in fossil fuel combustion emissions.
- Using Duke's current modelled carbon reduction, electrification of our buildings using Geothermal space conditioning can reduce the carbon emissions of buildings by more than 71 percent over its useful life.
- This SFP revision also improves the city's ability to leverage federal rebates through the Inflation Reduction Act direct pay program for clean energy projects.
- The proposed changes to the SFP include:
 - New Construction Only
 - Requires all new facilities to be all-electric except for back-up generation
 - Utilize geothermal systems for HVAC
 - Requires building automation systems
 - Requires smart surfaces to reduce energy and heat (cool pavement and roofs)
 - Requires feasibility analysis to determine if building a net-zero building is possible
 - New Construction & Major Renovations
 - Encourages the Leadership in Energy and Environmental Design (LEED) environmental life cycle assessment
 - Strengthens and expands on-site solar renewable energy
 - Scopes energy storage systems (e.g., battery) to maximize solar energy
 - For facilities that meet the bicycle network requirement, new construction will pursue LEED Bicycle facility credit, which supports mode-shift and includes bicycle storage
 - Requires a periodic analysis for HVAC replacement projects to determine if electrification of systems can occur
 - Upskilling

- Encourages Professional Energy Manager certification

Attachment(s)

Revised Sustainable Facilities Policy
SFP Summary