T & E AGENDA: 12/03/2018 ITEM: d (1)



# Memorandum

# TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

SUBJECT: SEE BELOW

**DATE:** November 13, 2018

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Approved	F	PHT -	Date	11-26-18

# SUBJECT: ENERGY AND WATER BUILDING PERFORMANCE ORDINANCE

# **RECOMMENDATION**

Accept the report on the Energy and Water Building Performance Ordinance and recommend this item for full Council consideration at the December 11, 2018 Council meeting.

Staff requests that Transportation and Environment Committee recommends that City Council:

- 1. Approve an ordinance amending the San Jose Municipal Code to add Chapter 17.85, the Energy and Water Building Performance Ordinance for existing commercial and multifamily buildings and amending section 1.08.020 to add violations of Chapter 17.85 to the list of infractions; and
- 2. Adopt a Resolution amending the schedule of fines to make clerical corrections and to add violations of Chapter 17.85.

# **OUTCOME**

City Council adoption of the *Energy and Water Building Performance Ordinance* for existing large commercial and multifamily buildings is a first policy step which will further community-wide progress on meeting the goals of the following Climate Smart San José ("Climate Smart") strategies:

- Strategy 1.2: Embrace Our California Climate
- Strategy 2.2: Make Homes Efficient & Affordable for Our Residents
- Strategy 3.2: Improve Our Commercial Building Stock

#### **EXECUTIVE SUMMARY**

Through a City Energy Project (CEP) grant received in 2016, San José has been working on a suite of energy efficiency policies and programs primarily geared toward the large commercial building sector. A focal initiative supported by the CEP grant was the evaluation of a local energy and water benchmarking and transparency ordinance as well as a building performance standard ordinance. Based on this work, staff is proposing a combined *Energy and Water Building Performance Ordinance* which includes both elements and will be one of the first policy steps related to the City's Climate Smart goals.

Existing buildings, in contrast to new construction, represent the vast majority of city-wide building stock, and can often go extended periods without efficiency improvements. These existing buildings represent the second largest source of greenhouse gas (GHG) emissions in San Jose after transportation, and present a long-term opportunity for substantial energy savings and water conservation, both of which are key Climate Smart focus areas.

The *Energy and Water Building Performance Ordinance* will encourage existing building owners and tenants to become more energy and water efficient, provide pathways for owners of low-performing buildings to improve the building's efficiency, and recognize high-performing, efficient buildings. The proposed ordinance will require covered large commercial and multifamily building owners of buildings over 20,000 square feet to track, or "benchmark," their buildings' energy and water use and report this data to the City on an annual basis. The City will then publish a subset of whole building performance data online. Approximately 2,500 buildings would be covered by this ordinance.

The ordinance will inform the market by educating prospective and current tenants, as well as building owners and operators, of their buildings' performance relative to other buildings covered by the ordinance. By collecting this data, the City will be able to better understand city-wide building stock, design more informed energy and water efficiency programs, and more accurately track several key Climate Smart metrics.

In addition to benchmarking and transparency requirements, the proposed ordinance creates two "beyond benchmarking pathways:" a "performance" pathway and an "improvement" pathway, one of which a building owner opts into every five years. Through the performance pathway, buildings owners will demonstrate, through collected benchmarking metrics, that their buildings meet key performance standards of a high performing building. If a building is not high performing, its owner can select one of several options via the improvement pathway to increase efficiency over time. These options include pursuing an energy or water audit, building retrocommissioning (retuning), or undergoing targeted efficiency upgrades.

Staff undertook an extensive stakeholder engagement process to vet the proposed ordinance, which was developed with highly collaborative feedback from over 100 individuals and over 50 organizations. Upon adoption, in addition to program administration, staff will provide outreach

and education to covered buildings, as program funding allows, to assist as building owners pursue increased building performance.

Program costs for the remainder of 2018-2019 will be paid for with existing resources. The funding of program costs for 2019-2020 will be considered as part of the 2019-2020 Proposed Budget process. While the program is anticipated to be funded by a cost recovery fee on an ongoing basis, staff will evaluate the possibility of identifying additional one-time funding to cover costs in 2019-2020 during the program's first full year if establishing a cost recovery fee for 2019-2020 is deemed not feasible or desirable.

The *Energy and Water Building Performance Ordinance* is anticipated to reduce energy and water consumption and generate significant community-wide GHG reductions in alignment with Climate Smart goals.

### **BACKGROUND**

On Feb. 27, 2018, City Council unanimously approved Climate Smart. This climate action plan outlines three pillars and nine individual strategies that address community-wide GHG reductions and water conservation. Council also directed staff to prioritize the creation of "innovative policies and programs to spur commercial building energy efficiency initiatives through the grant-funded City Energy Project" in the proceeding nine months.

A benchmarking and transparency ordinance typically requires the owners of existing commercial and multifamily buildings over a certain size threshold to track their energy and water use at no-cost through the online U.S. Environmental Protection Agency platform, ENERGY STAR Portfolio Manager® (ESPM). Covered buildings owners enter building characteristics and whole building aggregated energy and water usage data into ESPM and then submit ESPM-generated performance metrics to the implementing jurisdiction on an annual basis. A subset of ESPM data is then published online to encourage efficiency by increasing awareness of and demand for improved building performance.

In order to evaluate the proposed *Energy and Water Building Performance Ordinance*, City staff collected input from a wide variety of stakeholders in an extensive outreach effort (see Attachment A, *Outreach Summary*). From February through August 2018, staff held six three-hour public meetings with the assistance of Global Green, a third-party facilitator which also led the stakeholder outreach related to Los Angeles' comparable ordinance. In total, staff engaged over 50 organizations and 100 individuals, including commercial and multifamily building owners and property managers, research institutions, water and energy utilities, building trade groups, architects, engineers, affordable housing groups, energy services companies, and advocacy groups. In addition, staff provided direct outreach to membership organizations and met with individual stakeholders.

California Assembly Bill (AB) 802, adopted in 2015, created a statewide building energy use benchmarking and public disclosure policy for buildings larger than 50,000 square feet (sq. ft.). In June 2018, the California Energy Commission (CEC) adopted the regulations to implement AB 802. These regulations require building owners to report specified performance metrics to the CEC by June 1 annually, with the ultimate publication of a portion of that data. Reporting began under AB 802 on June 1, 2018 for commercial buildings and will begin on June 1, 2019 for multifamily buildings. Due to minimal outreach and a lack of enforcement, only approximately 18 percent of covered buildings met the June 1, 2018 reporting deadline to the CEC.

AB 802 permits a local jurisdiction to adopt its own benchmarking ordinance. The ordinance would then be provided to the CEC for approval. If the CEC determines the local ordinance meets the goals of AB 802, compliance with the local ordinance relieves the building owners from further reporting to the state.

#### ANALYSIS

Through the CEP stakeholder engagement process, participants provided feedback on the various components of a draft ordinance, which was synthesized and integrated as appropriate to craft a final proposed *Energy and Water Building Performance Ordinance* (Attachment B).

#### **Ordinance** Components

The *Energy and Water Building Performance Ordinance* builds upon the standard benchmarking and transparency ordinance model to create a more comprehensive and locally-tailored version which more effectively implements Climate Smart and captures significantly higher energy and water savings from covered buildings. For a comparison of benchmarking policies nationally, see Attachment C. The ordinance will require owners of existing commercial and multifamily buildings of 20,000 sq. ft. and above to benchmark and report aggregated ESPM performance metrics to the City annually. Approximately 2,500 buildings would be impacted by the Ordinance. It excludes townhomes and condominiums due to the inherently more complicated ownership and management structure of these complexes. However, the proposed Ordinance requires the building owners to comply with the CEC's regulations on the collection of the data, including the requirements for obtaining tenant's consent, if necessary. A subset of reported ESPM data will then be made publicly available (e.g. via a spreadsheet or interactive map).

In addition to annual benchmarking reporting and transparency requirements, on a rolling fiveyear cycle, the *Energy and Water Building Performance Ordinance* will require the owners of covered buildings to go through one of the two following beyond benchmarking pathways in order to encourage a more rapid uptake of water and energy efficiency improvements than benchmarking alone.

<u>Performance Pathway</u>: The performance pathway is for owners whose buildings meet key building energy and water performance standards, or that demonstrate significant

improvements in building energy and water efficiency, as measured and reported through ESPM over the past five-year compliance cycle. For example, the owner of a newer building or one that has received a 75 percent Energy Star rating will be required only to submit verification of this high performance. For more details on Performance Pathway criteria, please see Attachment D.

<u>Improvement Pathway</u>: The improvement pathway is for owners whose buildings do not currently meet the performance standards. A building owner may complete an audit, building retuning, or two of the energy efficiency improvement measures to increase energy and/or water performance of the building (depending on the building's performance metrics in each category). See Attachment D for details including the energy and water efficiency improvement measures. The list of improvement measures is based primarily on tracked metrics in Climate Smart and will be updated over time to reflect changes in technology. It is intended to be flexible, so that a building owner can select an improvement pathway that is most effective from both a cost and savings perspective.

For those buildings in need of improvement, an energy and/or water audit is a common first step to identify retrofits yielding the best return on investment. The cost of an American Society of Heating, Refrigerating and Air-Conditioning Engineers or "ASHRAE" level II audit (level required by the ordinance) costs roughly \$0.15/sq. ft. which equates to approximately \$3,000 for a 20,000 sq. ft. building. Building owners are not required to implement the recommended retrofits, but doing so would yield energy and water cost savings. Building retro-commissioning costs roughly \$.30/sq. ft. which translates to approximately \$6,000 for a 20,000 sq. ft. building. Unlike audits, retro-commissioning focuses on identifying building tune-up actions, which typically are low-cost to implement, but still yield energy and water cost savings. Smaller buildings may opt to not conduct an energy and/or water audit, but instead perform basic retrofits, such as converting to LED lighting, which typically have short payback periods. There are several audit, retrofit, and financing resources available to assist with these efforts.

The Ordinance outlines criteria for exemptions and appeals. It also allows for the City to assess administrative citation fines for non-compliance. Daily non-compliance fine amounts (\$25-50 depending on building size) have been set to ensure covered building owners are properly incentivized to comply; the cost of non-compliance is only slightly lower than compliance estimates, but still substantial enough to encourage compliance. The cumulative fine per violation will be capped at \$2,500-\$5,000 (depending on building size). The proposed Ordinance also adds violations to the list of infractions. At the same time, the Ordinance makes three clerical corrections to the list of infractions by adding two sections that were inadvertently dropped and removing a repealed section. Staff will ensure proper outreach and education on compliance requirements and assess compliance rates over the first three program cycles prior to enforcing on the new requirements.

#### **Ordinance Benefits**

While AB 802 is a valuable first step in encouraging building efficiency, the state law authorizes local jurisdictions to adopt ordinances to go beyond the state minimums. The proposed Ordinance would increase the number of covered buildings (from 1,400 to 2,500), add a water component, and further mandate building owners to meet performance standards, or complete actions which will improve building efficiency.

Adoption of the *Energy and Water Building Performance Ordinance* in San José will benefit the City and community in many ways, including:

- **Reduced GHG Emissions:** Building energy usage represents approximately 33 percent of San José's GHG emissions, second only to emissions associated with transportation. Over half of the buildings that will be standing in our community in 50 years have already been built<sup>1</sup>, and the poorest performing buildings can use three to seven times more energy than the highest performing buildings<sup>2</sup>. This ordinance will help to increase the energy- and water-efficiency in existing buildings. In Washington D.C., for example, buildings that benchmarked from 2010 to 2012 under the District's ordinance reduced energy use by nine percent on average over that three-year period.<sup>2</sup>
- Long-term Building Cost Savings: Benchmarking enables building owners and tenants to set performance baselines, better understand their usage trends, catch usage irregularities sooner, and compare their buildings' performance to that of other similar buildings, highlighting the opportunity for and encouraging the investment in energy and water savings. This can lower utility costs for building owners and/or occupants. Owners across the U.S. that benchmarked their buildings over a three-year period reduced energy consumption by an average of 2.4 percent annually, which for a 500,000 sq. ft. office building could result in cumulative energy cost savings of \$120,000 over a three-year period.<sup>2</sup>

The ordinance can also have a positive impact on low-income, multifamily tenants. Efficiency in this sub-sector is especially important, as low-income households have been shown to spend up to three times as much (as a percentage of annual household income) as higher-income households on energy utilities.<sup>3</sup> Owner funded improvements to the energy and water efficiency of low-income multifamily housing, can reduce the utility costs passed on to tenants.

• **Improved Data**: By collecting benchmarking data, the City will gain an enormous amount of insight into the state of the local building stock, both building systems characteristics and performance trends. This data will enable staff to design locally tailored energy and water efficiency programs.

<sup>&</sup>lt;sup>1</sup> https://buildingefficiencyinitiative.org/articles/why-focus-existing-buildings

<sup>&</sup>lt;sup>2</sup> https://www.imt.org/resources/fact-sheet-energy-benchmarking-and-transparency-benefits/

<sup>&</sup>lt;sup>3</sup> http://aceee.org/research-report/u1602

- Economic Growth: Over time, the demand for services from engineers, auditors, architects, facility managers and construction workers will increase across the market. Through the development of the City of Philadelphia's benchmarking ordinance, 77 percent of buildings were identified as needing upgrades, which were estimated would generate more than \$600 million in local spending and support 23,000 jobs.<sup>2</sup>
- **Improved Public Health**: Implementation of the ordinance will have a positive impact on community-wide health by reducing the amount of energy generation required, mitigating climate change risks long-term. On an individual level, building occupant health will be improved, as energy efficient buildings are shown to have improved indoor air quality. These community and individual benefits have been shown to result in lower public health spending and higher economic productivity.<sup>4</sup>

#### **Implementation and Enforcement**

While the CEC has been granted authority to administer fines and enforce the requirements of AB 802, it has indicated that there are limited resources allocated for this to occur in the future to improve the rate of reporting. Therefore, and based on City Energy Project feedback on best practices, an overriding local Ordinance would more effectively reduce GHG emissions. In addition to enforcement, City staff will provide support through outreach and education to covered buildings, as funding permits. In order to allow San José building owners to plan for the requirements of the Ordinance, implementation will be phased in over the course of approximately four years as follows:

- Year 1—On May 1, 2019 covered buildings over 50,000 sq. ft. will be required to report benchmarking data to the City. Data will be made transparent for this subset of covered buildings. Year 1 implementation is intended to transition buildings covered by AB 802 from reporting to the state to reporting to the City, covering approximately 13 percent of the buildings in the City.
- Year 2—On May 1, 2020, all covered buildings over 20,000 sq. ft. will be required to report benchmarking data to the City, raising the percentage of buildings covered in the City to 24 percent. Data will be made transparent for all covered buildings at this time.
- Year 3—On May 1, 2021, Beyond benchmarking pathway requirements will be implemented for buildings over 50,000 sq. ft., where needed.
- Year 4—On May 1, 2022, Beyond benchmarking pathway requirements will be implemented for buildings over 20,000 sq. ft., where needed.

The phased implementation approach is meant to provide ample time for outreach and education around the new requirements. This will also allow the development of internal resources to support additional buildings and data management over time.

<sup>&</sup>lt;sup>4</sup> https://webstore.iea.org/capturing-the-multiple-benefits-of-energy-efficiency

The *Energy and Water Benchmarking and Transparency Ordinance* is a key first policy to spur energy and water efficiency improvements and associated GHG reductions in San Jose's large buildings in alignment with Climate Smart goals.

# **EVALUATION AND FOLLOW-UP**

ESD will provide a status update on the *Energy and Water Building Performance Ordinance* annually to City Council as part of its regular Climate Smart Council updates.

#### **POLICY ALTERNATIVES**

*Alternative 1: Set benchmarking and transparency size threshold higher at 50,000 sq. ft.* **Pros:** If set to 50,000 sq. ft. the ordinance aligns with AB 802, covering approximately 1,400 buildings, representing approximately 70 percent of commercial and multi-family building stock. **Cons:** Compared to comparable local ordinances nationwide, 50,000 sq. ft. is a relatively high threshold, still leaving much opportunity to capture savings. Typically, larger building owners already have more internal bandwidth, capital, and motivation to pursue efficiency, so a higher threshold does not target buildings in need of the most assistance.

**Reason for not recommending:** Staff has suggested lowering the threshold to 20,000 sq. ft. to ensure a higher impact, align with Climate Smart San José goals, and more equitably encourage efficiency in city-wide building stock.

Alternative 2: Set benchmarking and transparency size threshold lower at 10,000 sq. ft.

**Pros:** If set to 10,000 sq. ft. the ordinance will cover approximately 4,700 buildings, representing approximately 90 percent of commercial and multi-family building stock. This would be one of the most aggressive ordinance thresholds nationwide.

**Cons:** Smaller buildings represent smaller opportunity for savings; dropping the threshold would represent a significant increase in work for staff, yielding less additional energy or water savings. Smaller building owners typically have less internal bandwidth, capital and expertise to pursue efficiency, making the internal demand for support that much higher, and likely unfeasible at this point.

**Reason for not recommending:** Staff has suggested setting the threshold at 20,000 sq. ft. maximizing the covered square footage and minimizing the number of buildings covered.

#### Alternative 3: Do not include Beyond Benchmarking pathways in ordinance

**Pros:** Covered buildings will have fewer requirements and often a lower cost of compliance. **Cons:** Removing Beyond Benchmarking pathways will result in decreased energy and water conservation city-wide and decrease the ordinance's contributions to the goals of Climate Smart. **Reason for not recommending:** Beyond Benchmarking Pathways support actionable solutions to reducing local GHG emissions.

# Alternative 4: Do not pursue Energy and Water Benchmarking and Transparency Ordinance

**Pros:** There will be no impact to the large commercial or multifamily building stock of San José. **Cons:** This ordinance provides a means to engage building owners on opportunities for efficiency and improved performance; without this ordinance, the City will not ensure energy and water savings, which will contribute to Climate Smart goals and provide valuable data to the City and public.

**Reason for not recommending:** The GHG reductions called for in Climate Smart are extremely aggressive and will not be achieved without definitive actions. Voluntary programs to encourage high-performing buildings are beneficial, but do not yield the magnitude of impact needed to meet our Climate Smart goals. AB 802 acts as a backstop for jurisdictions that cannot pass ordinances, but has a high sq. ft. coverage threshold, excludes water, and lacks additional components that prompt further actions, all of which contribute to a higher level of energy and water savings, and overall GHG reductions. In addition, the State does not possess an inventory of existing buildings in San José or elsewhere, so reliance on AB 802 does little to improve the City's understanding of its commercial building stock.

# **PUBLIC OUTREACH**

Public outreach occurred from February through October 2018. See Attachment A (*Outreach Summary*) for an overview of community outreach conducted during the policy development process. All meetings were open to the public and agendas and meeting minutes were noticed in compliance with public meeting requirements.

Stakeholders were actively engaged at each of the meetings held. Each meeting approached a different component of the proposed ordinance, and no negative feedback surfaced throughout the process. Stakeholders did request that the City provide the following, should the ordinance be adopted:

- Adequate staffing resources to assist smaller building owners with compliance
- Context for any building data published, so that viewers would be able to understand that a building's low score might be attributable to a specialized use, e.g., server farm/data center, as opposed to being indifferent to making efficiency upgrades
- Education and training for building owners, where needed

Participants in the stakeholder engagement process will be informed of the ordinance moving to the T&E Committee and City Council, and potential funding mechanisms at a meeting scheduled for November 30, 2018.

This memorandum shall be posted on the City's website for the December 3, 2018 Transportation and Environment Committee meeting.

# **COORDINATION**

Preparation of the *Energy and Water Building Performance Ordinance* and this memorandum were coordinated with the City Attorney's Office, Planning, Building and Code Enforcement Department, Housing Department, Public Works Department, Finance Department, the Office of Economic Development, and the City Manager's Budget Office.

#### **POLICY ALIGNMENT**

The *Energy and Water Building Performance Ordinance* directly aligns with the following Climate Smart strategies:

- Strategy 1.2: Embrace Our California Climate
- Strategy 2.2: Make Homes Efficient & Affordable for Our Residents
- Strategy 3.2: Improve Our Commercial Building Stock

The ordinance also directly supports AB 802 and several other state-level policies, including Senate and Assembly Bill 32 (*Global Warming Solutions Act of 2006*) and Senate Bill 350 (*Clean Energy and Pollution Reduction Act of 2015*).

#### COST SUMMARY/IMPLICATIONS

The *Energy and Water Building Performance Ordinance* will require staffing resources for outreach, technical assistance, fee collection and enforcement, analysis, and reporting. From adoption of the Ordinance through June 30, 2019, staff's intention is that the program will be funded with existing resources, such as the Silicon Valley Energy Watch (SVEW) 2019 grant and funding previously allocated for the Property Assessed Clean Energy (PACE) Program at a total estimated cost of approximately \$75,000. PACE Program funding was allocated in 2014-2015 for a multi-year marketing campaign, which concluded in early 2018-2019. While minor PACE activities are planned to continue in 2018-2019, much of the remaining funding will be recommended to be reallocated toward the *Energy and Water Building Performance Ordinance* activities as part of the 2018-2019 Mid-Year Budget Review.

Staff will consider the feasibility of implementing a fee program crafted to ensure that costs to administer the program are fairly recuperated on an ongoing basis. The costs will reside within the Environmental Services Department for direct management of the program, and within the Finance Department to provide billing and collections services. Based on the experience of other large cities, approximately 0.5 FTE in the Environmental Services Department will be required for direct program support and monitoring. At present, the costs related to billing and administrative support are still under evaluation. These combined costs would form the basis of a potential fee program paid by the covered building owners.

As part of the 2019-2020 Proposed Budget development process, staff will consider the feasibility of implementing a fee for this program in 2019-2020, or if other one-time resources could be identified to support the program during its first full year to allow further consideration of a fee program starting in 2020-2021.

#### **CEQA**

Exempt, File No. PP18-088, CEQA Guidelines Section 15061(b)(3) – General Rule

/s/ Kerrie Romanow Director, Environmental Services

Attachment A: Outreach Summary Attachment B: Energy and Water Building Performance Ordinance Attachment C: Current U.S. Benchmarking and Transparency Ordinances Attachment D: Beyond Benchmarking Pathways

For questions, please contact Ken Davies, Sustainability and Compliance Division Manager, at (408) 975-2587.