

Energize Denver Task Force Recommendation – technical clarifications

Benchmarking and Transparency

Recommendations say on page 4: “All buildings over 25,000 square feet would be required to benchmark each year using ENERGY STAR Portfolio Manager and report the ENERGY STAR score, energy use intensity (EUI), and select additional information¹ to the City.”

Clarifications:

- Each year the City will publish a data request in ENERGY STAR Portfolio Manager and notify all covered buildings of their compliance obligations. The building owner will be responsible for entering all required data into their own Portfolio Manager account and then responding to the City’s data request.

Recommendations say on page 5: “A building is exempt if the owner is unable to obtain tenant consent to customer data in a building that does not qualify for whole building aggregated data under the PUC data privacy rules. ²”

Clarifications:

- Owners of multi-tenant buildings must state in writing that they made a good faith effort to obtain consent from tenants in order to receive an exemption.
- Under the PUC’s 4/50 rule the property owner can represent one of the minimum 4 meters/accounts and if more than 50% of the property’s energy consumption is due to their own account, then it is not a violation to report the whole building energy data

Recommendations say on page 6: “The City will audit the first year’s compliance data and any building owners with obvious errors in their reported data will be required to have a licensed professional verify their information submitted in the second compliance period. Such verification shall be in a form of a stamped and signed statement by a licensed professional attesting to the accuracy of the information. The City will also do a detailed audit of a small percentage of all building owners’ reports each compliance year.”

¹ The City currently collects the fields listed [here](#) for our benchmarking program. They will need these same fields for the benchmarking requirement, plus the attribute fields for each building type that shape the score so we can audit/spot check for accuracy. For example, in office buildings that would include operating hours, occupancy, number of computers, etc.

² Currently, under PUC energy data access and privacy rules, a building owner can obtain aggregated whole building energy usage data as long as there are at least 4 meters (customers/tenants) in the building and no one customer/tenant accounts for more than 50% of the energy usage. If either of these conditions are not met then, under PUC rules, the building owner must get consent forms from each customer/tenant and submit those to Xcel to obtain the whole building aggregated data. Many of these buildings will be able to get tenant consent, but if they can’t then they are excluded. All other buildings should be able to get whole building energy data, and therefore would be able to comply with the ordinance.

Clarifications: The City will approach ensuring quality benchmarking data is reported in the following way – giving even more time for education and outreach prior to requiring a professional engineer to sign-off on the score.

- Year 1: The City will focus on educating and helping owners comply. The City will review data and look for obvious data quality problems where reported data is far above or below the expected levels. The City will also do a detailed audit to check the accuracy of a small percentage of all buildings.
- Year 2: The City will do outreach one on one to help owners with obvious errors fix those errors.
- Year 3: For buildings with continued data accuracy problems, the City might require building owners to submit a certificate of proficiency in benchmarking, in addition to outreach.
- Year 4: The City will require a professional engineer to sign off on the scores of buildings that still have obvious data quality problems.

Perform or Improve:

Recommendations say on page 7: “Top performers will be celebrated and need to take no further action.”

Clarification: A ‘top performer’ is any building that the owner can prove it is in the top quartile nationally. Proof can be provided through ENERGY STAR certification of that building or through an alternate process for building types that are not eligible for an ENERGY STAR score.

Recommendations say on page 8: “A building owner shall improve the weather-normalized Energy Use Intensity (EUI) of his or her building by 15 percent from that building’s 2016 baseline (2017 in the case of buildings 25,000 sq. ft. - 50,000 sq. ft.). In future cycles, a building’s baseline will be its EUI at the time of its last improvement requirement (from five years prior).”

Clarifications:

- The 15 percent improvement is on site EUI (not source)
- Once a building that chooses this pathway improves enough to move into the top quartile of buildings nationally, then it is done improving and will be celebrated as a top performer!

Recommendations say on page 8: “A building owner shall complete a retrocommissioning (RCx) study and implement the findings of that study that have less than a 2.5-year payback.” and “A building owner shall complete an audit of base building systems and implement measures with less than a 2.5-year payback. “

Clarification: The private firms conducting the retrocommissioning or energy audit will use their expertise to determine the payback for different measures. In cases where an owner may finance upgrades, the financing costs might be included in this analysis. Such decisions will be left to the discretion of the building owners working with their private sector providers and not decided by the City.

Recommendations say on page 9: “Any building type that cannot qualify for ENERGY STAR certification will need to prove they are in the top quartile nationally in order to be exempt from improvement requirements. The process to do this is relatively straightforward, but the City will make sure the process is clear and will help these buildings with the process, including the process of finding buildings against which to compare. “

Clarifications:

- The initial rules and regs would specify that only building types eligible for an ENERGY STAR score would need to comply with ‘perform or improve’ requirements.
- Any building type added into the ‘perform or improve’ requirements will be given 5 years to their first compliance deadline from the year they are added in.
- The City should quickly establish a process to create the methodology for including EUI only buildings if more than 10-20% of the square footage of Denver is found to be EUI only.

Recommendations say on page 10: “Standards to ensure quality shall be determined by a working group of experts during the month of June³. Please let us know if you’d like to be part of that group. The task force will review the group’s recommendations in meeting eight.”

Clarifications: An informal quality assurance working group was formed to make initial recommendations to the task force. The task force reviewed these recommendations in their final 8th meeting.

EUI Improvement of 15%:

- The group proposed starting with the City spot checking the 15%, ie trust but verify.
- If the City finds lots of problems when spot checking, then could move to the option of requiring a PE or other certified professional to sign-off on EUI improvement reports attesting to their accuracy.

Retrocommissioning with implementation under a 2.5 year payback:

- The group suggests the City have a “How-To” guide outlining the RCx process, sample report, and guidance for evaluating service providers (for owners), etc.
- No national standard for RCx scope exists so the group suggests we have a Denver specific check-list. Set minimum standards, but allow for flexibility. The group suggested the Boulder scope for retrocommissioning as an appropriate balance between prescriptive lists and flexibility. See pages 9-12 of [Boulder’s rules and regs](#).
- The City should review reports to ensure quality is met. If an unsatisfactory review occurs, the building owner and their provider should have to re-submit until the report satisfactorily meets City requirements.
- The group suggested Denver have a list of ‘suggested providers’, not ‘approved providers’ that must be used. If quality is a significant problem the City might move to a ‘approved provider’ list that building owner are required to use.
- Qualifications to get on Denver’s ‘suggested provider’ list are an inclusive list from NYC, Boulder and other ideas.

³ The work group shall determine items such as if and how EUI improvements will need to be verified. The work group shall determine items such as qualifications or certifications to perform the RcX, what process and steps qualify as RcX, and what reports shall be submitted to the City to demonstrate compliance. The work group shall determine items such as qualifications or certifications to perform the audit, what process and steps qualify as an audit, and what reports shall be submitted to the City to demonstrate compliance.

- Five years of experience.
- Approved by the local utility to perform retrocommissioning of equivalent scope on similar types of buildings as part of the utility's energy efficiency programs.
- Three years of experience and any number of commissioning certifications. The group noted that the three years of minimum experience is the key since so much of retrocommissioning is learned from peers in the field.

Audit with implementation under a 2.5 year payback:

- The group recommends the City refer to the soon to be released ASHRAE 211 standard to set a bar for the minimum legal qualifications for energy auditors and standardized reporting forms. The 211 standard will include both ASHRAE level 1 and level 2 audits.
- The group suggested following a similar process as that outlined under RCx above to create a 'suggested auditor' list.