

Guidance for Reporting Building Stock Changes in Annual Report

For changes in building stock (including additions, new construction, demolition, replacement or acquisition), **PLEASE CONSULT WITH DOER TO DETERMINE THE PROPER TREATMENT OF THEIR ENERGY USE IN THE FUTURE ANNUAL REPORTS.** In general, the guidance provided in the table below will be followed. However, due to the unique nature of many building projects, a community should consult with DOER regarding building stock changes prior to submission of its Green Communities Annual Report. Please contact your Regional Coordinator to initiate this conversation.

Building Stock Changes Summary Guidance

| | New or Altered Building Energy Included in Energy Consumption vs. Baseline? | How to Report? |
|--|--|---|
| Retrofit/Renovation | Yes | Annual report |
| Addition | Yes, pro-rated by square footage | Annual report |
| New Construction | No | Separate monitoring |
| Removal/Demolition | Up to community's discretion | Annual report |
| Replacement of an Existing Building | Yes | Annual report |
| Acquisition of an Existing Building | Only if desired | Separate monitoring or add to baseline in annual report |

- **Retrofit/Renovations:** Retrofits and Renovations will be factored into the 20% reduction and do not alter the energy use baseline. These do not increase building square footage and renovations should be done such that the renovated space becomes more efficient.
- **Additions:** The energy load for a building and its addition will be counted towards the 20% reduction target but will be pro-rated based on the “new” building square footage. For example, if a 10,000 sq foot building added 5,000 sq feet (an additional 33%), then 66% of the energy usage for the building would be accounted for in monitoring the community’s progress towards meeting its 20% energy reduction target.

| Sample Building from Energy Baseline | |
|---|----------------|
| size (sq ft) | 10,000 |
| plus addition | 5,000 |
| TOTAL new building size | 15,000 |
| % Prorated energy use = $(10,000/15,000) \times 100$ | 66% |
| Total Electric Energy Use (kWH) | 1,250,000 |
| Prorated Energy use $(1,250,000 \times 0.66)$ | 825,000 |

Report this in Annual Report

- **New Construction:** The additional energy load from these buildings will NOT be added into the energy use baseline and therefore the additional load will NOT be factored into the 20% reduction target. Municipalities using MassEnergyInsight should flag the building to “exclude from baseline.”

However, a municipality will be expected to monitor the performance of this building, using MassEnergyInsight or another tool, under its annual Green Communities reporting to verify that it is performing as designed and modeled.

- **Removal/Demolition:** For buildings that are removed from the building stock, the community has the option to adjust the energy use baseline by subtracting that building’s energy use and revising the 20% reduction target accordingly. This will occur ONLY for buildings that are not replaced by a new building or leased space (see below).
- **Replacement of an Existing Building:** For buildings originally included in the baseline that go offline and are replaced by a new building, the energy use baseline will not change and the new building will be included in the 20% reduction target. If the new building is larger than the replaced building, then the energy use will be pro-rated according to the difference in their square footages. For example, if a 25,000 sq foot building was replaced with a 50,000 sq feet (an additional 50%), then 50% of the energy bills for the building would be accounted for in monitoring the community’s progress towards meeting its 20% energy reduction target.

| Sample Building from Energy Baseline | |
|--|----------------|
| original size (sq ft) | 25,000 |
| Size of new building | 50,000 |
| % Prorated energy use = $(25,000/50,000) \times 100$ | 50% |
| Total Electric Energy Use (kWH) | 1,500,000 |
| Prorated Energy use (1,500,000 x 0.50) | 750,000 |

Report this in Annual Report



- **Acquisition of an Existing Building:** If a municipality acquires an old building (i.e., not new construction) after the baseline year, and that building is not replacing a building already included in the baseline, the additional load from such a building will not be required to be included in the consumption profile and therefore the additional load will not be factored into the 20% reduction target. **HOWEVER**, one of the following two should occur:
 - The municipality should address these buildings separately in its Annual Report, noting what their baseline energy use was when they were acquired and what measures are planned for their improved energy performance.
 - As an alternative, if a municipality so chooses, it can add the load from these buildings into the energy use baseline when they were acquired and include them in the 20% reduction target. (A municipality may choose to do this because it may provide a better opportunity for them to achieve the 20% reduction target). A municipality choosing to do this must provide an explanation in its Annual Report.
- **Petition to Modify Energy Use Baseline:** At any time, a municipality can petition DOER to consider modification of its baseline. For example, a municipality may replace an existing smaller school with a new school that is significantly larger, with a pool added, etc, and it may wish to adjust its baseline to take this added square footage and energy use data into consideration. DOER reserves the right to approve or deny any such petition.