



Collected feedback on CRREM's Global EUI Methodology

A summary of feedback received prior to Market Sounding

MARKET SOUNDING | 2026



CRREM
CARBON RISK REAL ESTATE MONITOR

Collected Feedback on EUI Pathway

The CRREM Foundation has launched a Market Sounding to gather feedback on the Global EUI Pathway Methodology. In addition, CRREM regularly collects and catalogues feedback from stakeholders as part of its ongoing operations. This document distills the feedback CRREM has already received on the EUI Pathways, ensuring contributors see their input has been captured and will inform the Technical Council's review. The Foundation is grateful for all feedback and expects reviewing the perspectives of others will generate both agreement and/or constructive debate, providing valuable insights for the Technical Council.

Cataloguing Feedback

Feedback has been catalogued according to the **main elements or building blocks**¹ of the CRREM EUI Pathways, as well as general feedback:

A. 2020 Baseline EUI

Region-specific market-average EUI for the relevant property type.

Where it's from: Regional benchmarking data where available; otherwise modelled.

B. EUI Pathway Slope (year-over-year change)

Annual EUI target levels and slope of year-over-year energy efficiency improvement expected

How it's derived: Carbon pathway budget ÷ carbon intensity of building fuel mix (based on policy, otherwise modelled). Cannot be less than 2.9% (per UN SDG 7).

C. Levelling Year

Year at which CRREM EUI Pathway reaches Net Zero EUI target levels and flattens.

How it's derived: Based on carbon intensity of local energy mix and supply for buildings.

D. Net Zero EUI Target

Very low energy demand where the CRREM EUI Pathway ends at 2050.

How it's derived: Downscaled from IEA Net Zero by 2050 global energy budget for buildings.

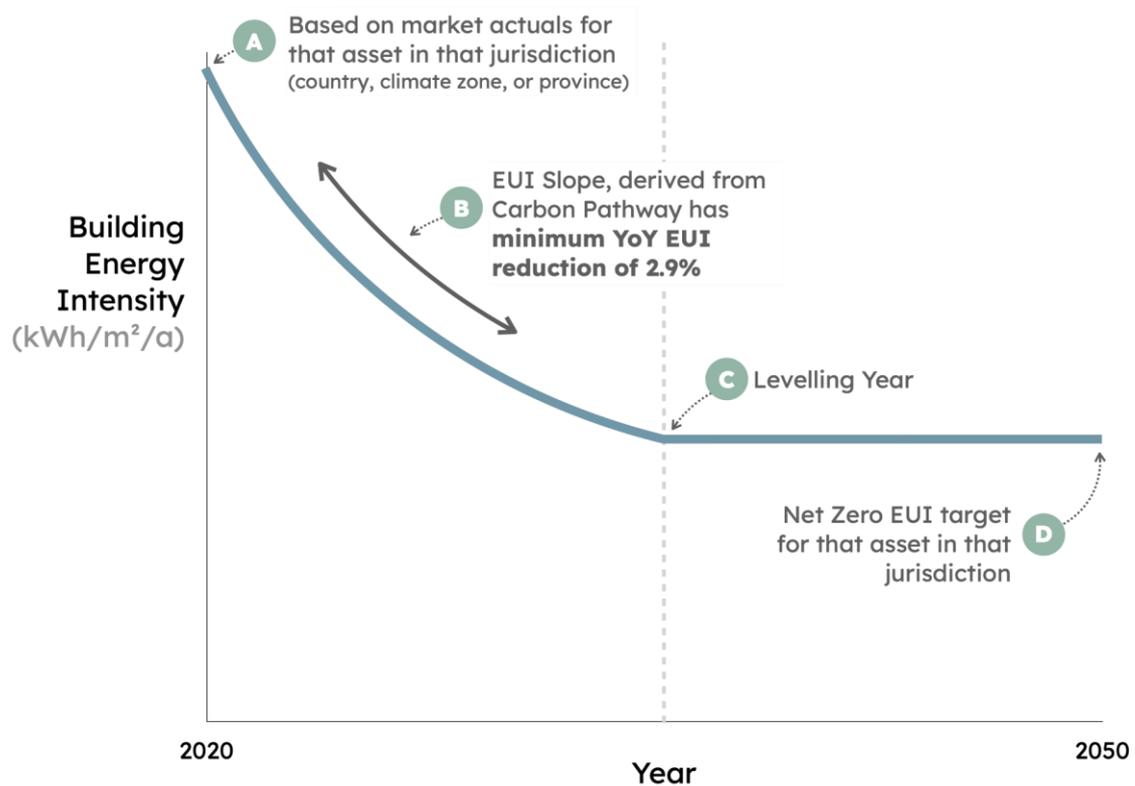
E. Other Feedback

Comments or observations, either general or specific to a region.

¹ Methodologically, however, these elements are not mutually exclusive and often influence one another.



The figure below presents an illustrative CRREM EUI Pathway, highlighting the main methodological building blocks.



2020 Baseline EUI

- Redefining baseline year:** For the CRREM Global Update in 2023, 2020 was defined as the baseline year in line with IEA scenarios. Over time, CRREM has received feedback that 2020 may not fully reflect current market averages, with stakeholders suggesting consideration of a more recent baseline year. **Please note:** Any potential Covid-19 effects on the data were explicitly taken into account and controlled for to ensure a representative baseline.

EUI Pathway Slope (year-over-year change)

- Slope tied to grid decarbonization:** CRREM has received feedback that the use of weighted Emission Factors, which are based on projections of local energy mix as well as grid and district system decarbonization to derive the EUI Pathway creates unreasonable EUI reduction requirements for buildings in countries and climate zones with weak building and grid decarbonization policies. In short, the slower the local energy system decarbonization, the faster buildings need to improve their energy efficiency to remain within the carbon budget and meet the end point of Net Zero.



Levelling Year

- **Levelling Year tied to grid decarbonization:** Similar to the EUI Pathways slope, per above, the ‘Levelling Year’, i.e. the year in which an asset is supposed to reach the 2050 Net Zero EUI Target and no further energy efficiency improvements are needed, is derived from projections of the local energy mix as well as grid and district system decarbonization. In scenarios where little-to-no grid decarbonization occurs, the Methodology places the full decarbonization burden on the buildings sector, requiring assets to achieve the 2050 Net Zero EUI Target significantly earlier through energy efficiency measures alone. In short, the slower the grid decarbonizes, the earlier the 2050 Net Zero EUI Target must be achieved (which can be as early as 2030).
- **Financial considerations of energetic retrofitting:** CRREM has gotten feedback that Levelling Years earlier than 2035 are unreasonable expectations, particularly if the retrofits required are not financially feasible. These stakeholders want the EUI Pathway to have greater connection to financial considerations. The current Methodology is an energy budget for buildings to stay within to restrain carbon emissions and aims to keep Global Warming to 1.5°C. It is purposefully independent from financial considerations, which specific to a building’s ownership and investment strategy.

Net Zero EUI Target

- **Timeline and technical feasibility:** CRREM has received feedback on the EUI Pathways’ ultimate target level, primarily because they must be achieved by the Levelling Year, which can be as early as 2030. Stakeholders noted that the EUI target levels are likely technically feasible if treated strictly as 2050 objectives. As a result, some have suggested a more linear progression of the EUI Pathways, ensuring that the Net Zero EUI Targets are in fact reached in 2050.
- **Bottom-up calibration:** Participants have recommended ground-testing the target levels, for example by benchmarking against the current best-performing buildings. This would ensure that the targets are not derived solely as downscaled figures from the IEA carbon budget adjusted by Emission Factors, but instead reflect a bottom-up assessment of what is technically feasible for a given property type and region.
- **Asset specificity:** The challenge of meeting the EUI target levels differs by country, property type, building age, etc. Some stakeholders have shared their view that EUI target levels should be unique to each building, not only property type and region specific.



- **Net energy considerations:** Other stakeholders have shared the opinion that the assessment against the CRREM EUI Pathway should be using the Emission Factors of the energy mix specific to the building, including any local or on-site renewable energy production. This would be a shift from the current Methodology that contemplates buildings sharing all available renewable energy equal to their needs, rather than what they can secure or install.

Other Feedback

- **Comprehension and clarity:** Stakeholders have shared that the CRREM EUI Pathways are not as well understood relative to the CRREM Carbon Pathways, and parties assessing against the EUI Pathways are unclear and inconsistent on what proportion of a building's energy use should be included in a CRREM Assessment. Stakeholders request clearer definitions and greater market education.
- **Bottom-up vs. top-down approach:** Some participants have recommended decoupling CRREM's EUI Pathways from the CRREM Carbon Pathways and removing emission factors from the EUI Pathway Methodology. Per this view, the EUI Pathway should reflect the energy efficiency potential of a building, entirely independent of local grid carbon intensity or the fuel mix of the local building stock. While setting top-down GHG targets is appropriate for allocating a defined carbon budget across sectors and subsectors, using a top-down approach, heavily dependent on external factors, to derive how these GHG targets should be achieved via the EUI Pathways may be less meaningful.
- **Sectoral Decarbonization Approach (SDA) for EUI Pathway:** Other stakeholders have shared the opinion that the CRREM EUI Pathway should be derived using the same SDA methodology as for the Carbon Pathway from the IEA's energy budget for the building sector.
- **Degree scenario alignment:** Stakeholders have called for CRREM to create EUI Pathways (and Carbon Pathways) aligned to different IEA budgets and Global Warming scenarios; they feel the current scenario is too aggressive to be used as a measure of transition risk. They believe the world has already surpassed, or is very near surpassing, a 1.5°C Global Warming scenario.
- **Frequency of updates:** Stakeholders have expressed concern that average building efficiency has not kept pace with the CRREM EUI Pathway expectations from 2020. Therefore, they suggest more regular updates to the Baseline EUI value to rebase the model and revise the Slope of the Pathway, in accordance with a smaller carbon budget. Other participants believe CREEM Pathways will become more difficult to set targets on and contract around if they change or are updated too often. We recognize a tension



between updating the Pathways to reflect recent actuals, and pace of practical applications.

- **Order of operations:** In the current methodology, the IEA derived Net Zero EUI targets for residential and commercial buildings are customized for each country and climate zone by Heating Degree Day (HDD) and Cooling Degree Day (CDD) before being customized to property type. Some stakeholders have recommended that the order should be property type before country. Implications of this are still unclear.
- **Region- and asset type-specific data sources:** CRREM has received feedback on data sources used for different regions and property types. Data sources relate to methodological *inputs* rather than the Global EUI Methodology itself, and are therefore out of scope for the Global EUI Methodology Review. That said, input data quality is a critical determinant of Pathway robustness. CRREM will also undertake extensive work to review and strengthen input data sources as part of implementing the Global EUI Methodology, ensuring Pathways are underpinned by the best available and most appropriate data.

For example: US-based stakeholders raised concerns that CBECS, a survey of US buildings managed by the federal government, is not statistically representative of institutional quality real estate assets. CBECS represents the broad US building stock, so the average commercial building is 16,300 square feet. This is substantially smaller than assets owned by institutional investors, though it is the data source for CRREM's Baseline EUI. US stakeholders have suggested using NREL ComStock/ResStoc, institutional-grade datasets (e.g., NCREIF), and/or data from platforms that aggregate building level data from real estate investment vehicles, as alternative or supplemental data sources. Feedback of similar nature has been received from other countries.

- **Hour matching:** The CRREM EUI Pathways do not account for the timing of electricity use. As a result, they do not promote best practices such as hour matching, where building operations are aligned with periods when the local power grid is cleanest. This overlooks an important lever for real-world carbon reduction in buildings, particularly as grids become more variable with higher shares of renewables.

