

Demand-side solutions in buildings can deliver deep emissions reductions and reduce the cost of power sector decarbonization

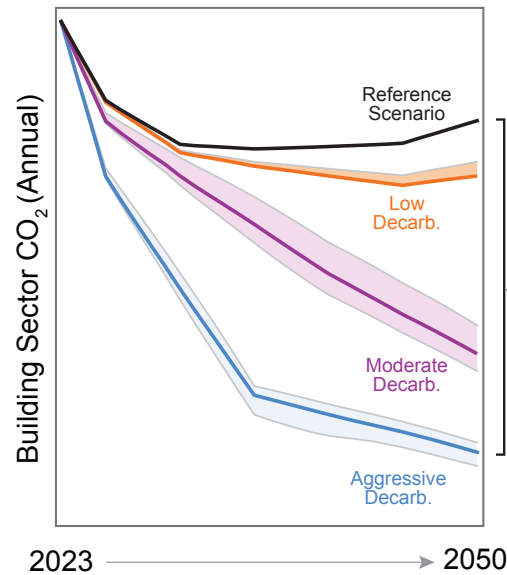
buildings2050.lbl.gov

Explore impacts of several building decarbonization scenarios on US energy demand, CO₂ emissions, and the grid through 2050

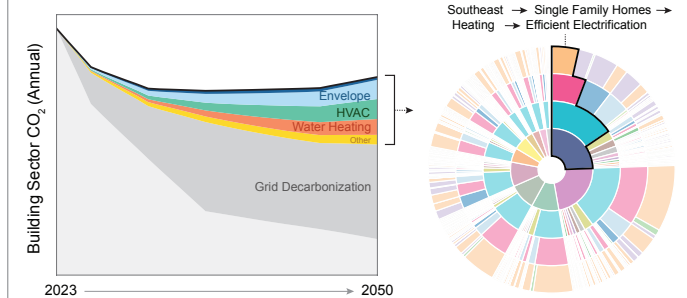
Detailed demand-side measure representation Couple demand- and supply-side models



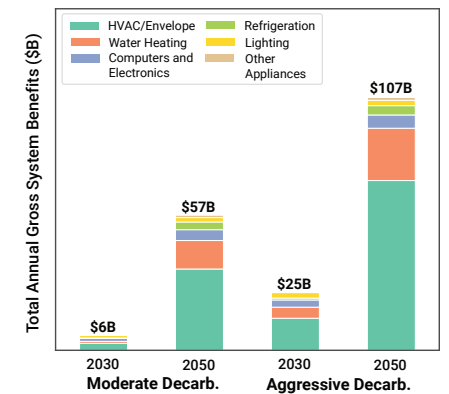
US building sector CO₂ reduced up to 91% below 2005 levels by 2050



Demand-side building efficiency and electrification solutions are critical for deep emissions reductions



Building efficiency and flexibility generate up to >\$100B in annual power system cost savings



Building technology R&D remains critical, but R&D relating to customer technology adoption and decision-making has never been more important



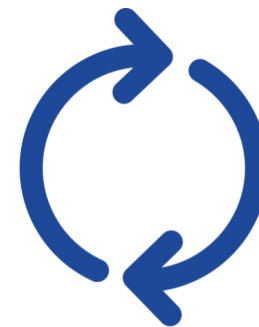
End-use electrification adoption

(e.g., key drivers and their segmentation)



Demand flexibility potential

(e.g., signals, responses, constraints)



Coupling building and grid planning

(e.g., demand-side resources in power system models and forecasts)