

Energy Policy Update



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Commercial building efficiency opportunities

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A report prepared for the U.S. Department of Energy by the [Pacific Northwest National Laboratory](#) found that the nation's commercial building sector has significant potential to save energy by improving control measures and eliminating common HVAC faults.

The [May 2017 report, "Impacts of Commercial Building Controls on Energy Savings and Peak Load Reduction"](#), notes that commercial buildings in the U.S. consume approximately 18 quadrillion British thermal units (quads) of primary energy annually. While previous studies have suggested significant potential for energy savings by deploying sensors and controls, the lab says its report is the first to provide a comprehensive estimate of the national energy savings potential available by fixing building operational problems with efficiency measures.

Overall, after considering a variety of commercial building types and hypothetical sensitivity cases, the report estimated the annual building energy savings from energy efficiency measures to be 29%, and the "best estimate" of total primary energy savings to be 2.74 quads. According to the lab's model, three building types -- secondary schools, standalone retail, and retail dealership -- each achieved more than 40% savings nationally.

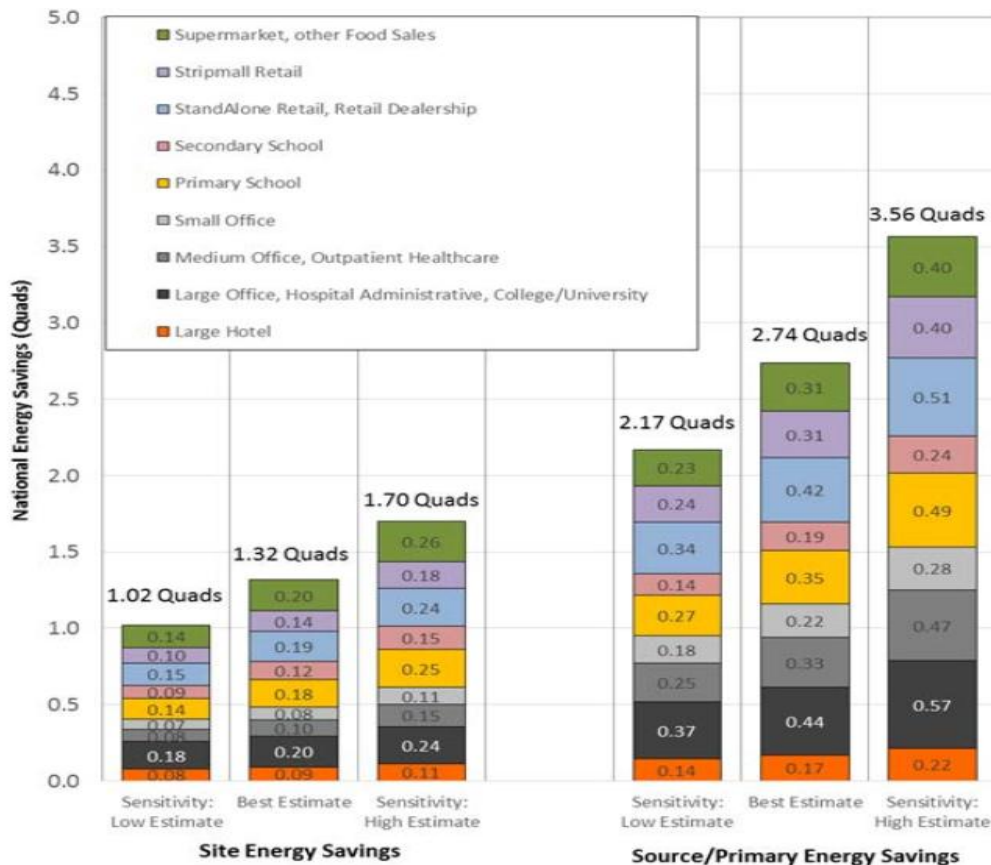


Figure S.3. National Total Site and Source Energy Savings Potential by Building Type in quadrillion Btu (quads)

Overall, the report concludes "that commercial building controls improvements are strategically important to meet and sustain reductions in national energy consumption."