



Baseline Standard Update: Federal Energy Efficiency Performance Standard

10 CFR 433

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- WHAT:** ECPA requires DOE to establish building energy efficiency standards for all new Federal buildings. (42 U.S.C. 6834(a)(1))
- The standards must contain energy efficiency measures that are
- technologically feasible,
 - economically justified, and
 - meet the energy efficiency levels in “voluntary consensus energy codes” (ASHRAE Standard 90.1 for commercial buildings and multi-family high-rise residential buildings; IECC for low rise residential buildings)
- WHEN:** Not later than one year after approval date of each revision of ASHRAE 90.1 or the IECC, DOE must determine whether to amend the baseline Federal building standards with the revised industry codes based on cost-effectiveness (42 U.S.C. 6834(a)(3)(B))

ASHRAE 90.1 is a private sector industry design standard for new commercial construction developed by the American Society of Heating Refrigerating and Air-Conditioning Engineers

- Buildings built to new baseline standard should consume less energy than buildings built to the old baseline standard.
- Federal buildings, where life cycle cost effective, must be designed to achieve a levels of at least 30% better than ASHRAE Standard 90.1.

- DOE previously required agencies to build new buildings in accordance with ASHRAE Standard 90.1-2010. (10 CFR part 433)
- DOE revised the latest baseline Federal building standard to ASHRAE Standard 90.1-2013, based on a finding that the updated standard is cost-effective and saves energy.

- What does it mean to go from 90.1-2010 to 90.1-2013?
 - ASHRAE 90.1-2013 is about 7.6% (site energy) or 8.5% (source energy) more efficient than previous baseline standard (national average)
 - ASHRAE has restructured Standard 90.1 starting with 2010 version to allow for increased regulation of certain loads previously considered to be “process loads”
 - Process Load Examples – data centers, elevators, commercial refrigeration equipment

- ASHRAE published Standard 90.1-2013 Oct 2013
- DOE published final determination of energy savings Sept 2014
- DOE published cost-effectiveness report Jan 2015
- DOE published baseline standard update Nov 6, 2015

- **EFFECTIVE DATE**: January 5, 2016

- **COMPLIANCE DATE**: Agencies will be subject to the requirements of 10 CFR 433 updates beginning Nov. 6, 2016.
 - “This final rule applies to new Federal commercial and multi-family high-rise residential buildings for which design for construction begins on or after one year from the publication date of this rulemaking in the Federal Register.”

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