

New Construction Code Concepts

Measure	Description
Whole-Building Electrification Requirements	
<p>This section describes code provisions that can be adopted to require all-electric or mostly-electric buildings. The advantage of these approaches is that they achieve electrification broadly with a single code provision. The downside of these approaches is also that they are broad, so they don't provide a targeted and severable approach to electrification of each building system.</p>	
Require All-Electric buildings	<p>This proposal prohibits the installation of gas infrastructure in commercial buildings. It can be paired with targeted exceptions for process loads like manufacturing and potentially commercial kitchens.</p>
Exempt Building Requirements	
<p>This section describes code provisions that do not require electrification, but that incentivize project teams to choose electric equipment by disadvantaging combustion equipment installations.</p>	
Increase code stringency for mixed-fuel buildings	<p>Increase the credit requirement in C406 for mixed-fuel buildings.</p>
Additional Efficiency for Gas Equipment	<p>Requirement for gas equipment installs to be accompanied by efficiency improvements (such as reduced infiltration, equipment efficiency, controls upgrades, etc.) to the building.</p>
Commercial Gas Pipe Testing	<p>When new gas equipment is installed, the gas piping must be leakage tested.</p>
Existing Building Code Concepts	
Whole-Building Electrification Requirements	
<p>This section includes a provision that can be used to require existing buildings or additions to be fully electrified.</p>	
Electrification of Substantial Alterations	<p>This proposal requires removal and/or disconnection of gas infrastructure in <i>substantial alterations</i>. Can be paired with targeted exceptions for gas end-uses such as process loads.</p>
Commercial Addition Electrification	<p>This proposal prohibits the installation of combustion equipment in additions, the extension of gas equipment into additions and the extension of gas piping into additions.</p>

Existing Building Code Concepts (Continued)

Targeted Electrification Retrofit Requirements

This section includes provisions that require the electrification of specific gas end uses at certain building lifecycle events. They have been tailored to coordinate with the forthcoming version of WSEC, particularly the allowances for like-for-like gas equipment replacements in WSEC.

Require Electrification of Furnaces	Require electrification when a gas furnace is replaced. The provision can include accommodations for emergency replacements.
Require Electrification of Storage Water Heaters	Require electrification when a gas storage water heater is replaced. The provision can include accommodations for emergency replacements.
Heat Pumps for Split System AC Compressors	Require the installation of heat pumps for split-system AC compressor replacements for systems with gas furnaces and the configuration of the gas furnace as supplementary heat.
Service Upgrade	Require replacement service connections to be sized for full building electrification.

Code Incentivizations for Electrification Retrofits

This section describes code provisions that do not require electrification retrofits, but that incentivize project teams to choose electrification retrofits at certain building lifecycle events.

Mandatory full system commissioning with gas equipment replacement	Require the entire system to meet the acceptance testing requirements in the code, not just the new equipment.
Full code compliance for gas equipment replacement	Require code compliance for all parts of the system (duct leakage, controls, duct insulation, economizer, etc.) when gas equipment is replaced.
Upgraded ventilation for gas cooking	Require more ventilation in any space undergoing an alteration that has gas stove in it (exception for non-commercial kitchens).

DEFINE: Emergency replacement

COMMENTS: