What are the Requirements?

Section C404.10 prohibits fossil fuel and electric resistance instantaneous and storage water heaters for commercial and multifamily permits submitted after January 1st, 2024. Gas boilers that provide domestic hot water are still allowed. There are several exceptions including:

- Electric resistance elements in heat pumps
- Electric resistance elements for recirculation loop temperature maintenance
- Electric storage water heaters with a volume <= 20 gallons
- Instantaneous electric water heaters within 10 feet of point of use
- Hot water storage tanks without electric resistance or fossil-fuel heating elements
- Water heating systems that require water temperature >= 141°F
- Electric resistance equipment where on-site renewables serve 100% the annual service water heating requirement
- Electric resistance storage water heating equipment where solar thermal serves 75% of the annual service water heating requirement
- Electric resistance in buildings that use a performance path for compliance

Complying with this requirement helps buildings align with Energize Denver’s electrification goals and can help buildings 25,000 sq. ft. and larger achieve their performance targets. Buildings 25,000 sq. ft. and larger can also receive a 10% adjustment for their Energize Denver performance target if they are 80% electrified. Learn more about the Energize Denver performance requirements at denvergov.org/energizedenver.

Why is this Important?

The goal of these sections is to align the Denver Energy Code with the Energize Denver electrification requirements and to future-proof the building to accommodate heat pumps. Electric equipment like heat pumps allow buildings to take advantage of low- to no- emissions as the electrical grid gets cleaner over time.

What is the Climate Impact?

The 2022 Denver Energy Code will reduce operational carbon emissions for commercial new construction by 15% over the 2021 IECC. C404.10 reduces the operational carbon emissions by 3.0% and requires electrification which aligns with Denver’s climate goals.