What are the Requirements?

New commercial and multifamily residential projects are required to provide electric ready infrastructure per section C405.15. “Electric ready” means that the construction includes infrastructure that will make it possible to easily replace fossil fuel equipment with electric an alternative, such as a heat pump. This includes:

- Water heating equipment with a capacity less than 300,000 Btu/h
- Furnaces serving spaces without cooling
- Fireplaces, ranges, and stoves
- Commercial cooking appliances
- Fossil fuel appliances and equipment serving individual dwelling or sleeping units

The required electric infrastructure is a junction box that is located within same space as fossil fuel appliance/equipment and connected to an electrical panel by continuous raceways.

The requirements for that junction box include:

- The junction box, raceway, and bus bar in the electric panel and conductors serving the electric panel must all be sized to accommodate electric equipment that would serve the same load as the fossil fuel appliance or equipment.
- The panel must have reserved physical space for a three-pole circuit breaker.
- The junction box and electrical panel directory entry for the dedicated circuit breaker space must have labels stating, “For future electric equipment”

How Does this Apply to Your Project?

Project teams will need to include the electric ready requirements for any fossil fuel burning equipment or appliances. This could increase the cost of installing fossil fuel appliances and equipment as the electric infrastructure will also have to be installed.

Why is this Important?

The goal of C405.15 is to future-proof buildings to allow for easier electrification and to take advantage of low-to-no emissions as the electrical grid gets cleaner over time. Xcel Energy is committed to an 85% reduction in carbon emissions on the electric grid by 2030. When natural gas equipment gets replaced with electric equipment in the future, the process will go more smoothly since the electric infrastructure is already in place.

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. C405.15 does not directly reduce carbon emissions in Denver but is important to the future electrification of buildings.