

Electric Considerations for Electrification Upgrades: Multifamily Buildings

Upgrading buildings with electric heating, hot water, and cooking requires sufficient electric infrastructure. This guide provides an overview of these electrical needs and considerations for upgrades. Consider all of the electrical infrastructure needs for your retrofits, including potential future upgrades such as electric vehicle charging and solar. Plan ahead to reduce disruption and costs by minimizing rework on the same system.

ELECTRIFICATION UPGRADE IMPACTS



Apartment panels contain circuit breakers. Typically, each apartment will have its own panel.

Apartment panels must have sufficient space and capacity for new electric equipment.

Panel upgrades may be needed if capacity is too low.



Conduit is electrical wiring which connects the apartment panel to electrical equipment such as mini-splits, electric stoves, appliances, and outlets.

Old gas equipment likely do not have conduit available for new electric equipment.

New conduit may be needed between the panels and equipment. This may require access to the interior of walls and can be disruptive to residents.



Master service panels, sometimes known as “switchgear” in large buildings, contain larger capacity circuit breakers and provide electrical service to different parts of the building.

Master service panels may need to be upgraded to support central equipment such as central heat pump water heaters and to provide more capacity to apartment panels.

Pre-1930s buildings may require significant upgrades to their panels and wiring to meet current electrical codes.



Electrical service is the amount of electrical capacity provided to the building from the utility.

Older, larger buildings and those without existing central cooling will likely require electrical service upgrades from the utility.

Coordinate with the electric utility as early as possible to understand complexity, timelines, and costs for service upgrades, which may vary widely.