



VOICES OF EXPERIENCE

# electrification

A Stakeholders Guide

## What is electrification?

Electrification is the process of converting an energy-consuming device, system or sector from non-electric sources of energy to electricity—in homes, buildings, industry, agriculture, and transportation.

## Why electrification?

Electrification can help us meet clean energy goals, lower overall energy costs, and optimize our existing infrastructure and resources. It is an emerging economy-wide decarbonization strategy that is gaining momentum and beginning to impact the electric power industry.



### LOWERS EMISSIONS

Even when fossil fuels are still in the generation mix, switching to electric vehicles and other electrification technologies can lower overall emissions. Using electricity generated from clean energy sources further helps communities reach their decarbonization goals.



### LOWERS COSTS

Electrification technologies are often more energy efficient than fossil fuel technologies. While electric bills may go up, consumers can reduce their overall energy costs by electrifying.



### INCREASES FLEXIBILITY

Electrification technologies can respond quickly to price signals. Opting to use electricity when it is cheap at night or when excess solar is available allows utilities to avoid purchasing expensive power at peak times. Flexibility in energy usage also allows utilities to optimize existing distribution assets.

## What sectors are being electrified?



Transportation



Buildings



Industry



Agriculture

ENERGY USE

ENERGY GENERATION

FOR MORE INFORMATION ON ELECTRIFICATION GO TO [SMARTGRID.GOV/ELECTRIFICATION](https://www.smartgrid.gov/electrification).



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