



# **WE CAN ELECTRIFY** *OUR BUILDINGS AND TRANSPORTATION SECTOR WHILE MAINTAINING A SAFE AND RELIABLE GRID.*

## **Utilities plan for a reliable grid**

Washington law requires that utilities continuously plan to ensure they have enough energy. Whether it's from population growth, new businesses, transportation electrification, or building electrification, utilities go through robust planning processes every two years to determine what new resources they need to maintain a reliable grid and keep the lights on for customers. Instead of spending resources to expand gas infrastructure, utilities can invest in technologies to ensure we have a safe and reliable electricity grid. In fact, investments in transportation and building electrification can put downward pressure on rates and benefit utilities.

## **State and federal law require reliability**

The US has mandatory federal reliability standards that utilities must meet, subject to enforcement by the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation. Utilities must meet these standards when developing their resource plans, and the Washington Utilities and Transportation Commission oversees the utility's compliance with planning requirements. Federal law supersedes state law, so reliability will not be at risk as a result of compliance with state laws.



## What about the timeline for transition?

**The transition to clean energy is not going to happen overnight, providing time for utilities to plan how to best meet our growing electricity demands in conjunction with other policy changes like the Inflation Reduction Act and market changes that increase our reliance on the grid.**

**Electrification does not overly burden the grid compared to other decarbonization pathways to achieve our statutory requirements. Modeling for the 2021 Washington State Energy Strategy (SES) showed that electric load under the full electrification scenario to only be about 7% higher by 2030 than other scenarios that meet our decarbonization requirements. Even by 2050, full electrification would only add up to 13% more electric load than the other decarbonization scenarios. This load growth will be phased in over time, giving the utilities time to plan for the transition**



## All-electric buildings and vehicles are efficient and smart

During many parts of the year, utilities have more power available than they need. Northwest utilities have had robust energy efficiency programs for decades to make the best use of our hydropower, and moving to highly-efficient heat pump technology can reduce energy use for heating and cooling homes by up to 50 percent or more, especially when replacing gas appliances or outdated window air conditioning units, putting less strain on the grid on hot days. Using smart EV chargers and smart thermostats will help reduce total energy use and smooth our demand to reduce impact on peak periods.

## Heat pump water heaters and EVs can help balance the grid

Because heat pump water heaters have hot water storage tanks, they can actually generate and store heat during off-peak hours, thus not adding to peak demand grid impacts. When heat pump water heaters are also installed with demand response control mechanisms, grid utility operators can send signals to quickly cut demand during periods of time in which the grid capacity might otherwise be stressed, providing flexibility to balance demand and supply. The same is possible with EVs, and most charging needs can be met during off-peak hours. Vehicle-to-grid technology is also on the horizon, which will allow EVs to be treated as battery storage for the grid, providing energy if needed and pulling energy when other demand is low.

## Electricity is safer and faster to restore during natural disasters

An “accident or incident” occurs on the U.S. gas distribution systems on [average every six days](#), causing dozens of fatalities, hundreds of injuries, and millions of dollars in property damage every year. The risk of an earthquake in the Pacific Northwest makes Washington State particularly vulnerable because highly pressurized gas transmission pipelines run a high risk of exploding during earthquakes, and gas is responsible for at least 20% of post-earthquake fire ignitions. Gas lines take [30 times longer to restore](#) than the electric system after natural disasters, so electrifying our homes and buildings is a resiliency measure as well.

## Washington has the workers to meet the growing need

Washington state has a robust workforce development system. State strategy should focus on the movement of existing skilled workers to new industry sectors and support those toward the end of their careers with a transition to retirement. To ensure that WA meets its important decarbonization goals with highly-trained, highly-skilled workers, the state must prioritize:

- Project Labor Agreements (PLAs), prevailing wage, and apprenticeship utilization requirements on all publicly-supported decarbonization work, including construction and operations and maintenance
- Increased funding for state-recognized pre-apprenticeship programs to ensure that our new clean energy workforce is robust, diverse, and inclusive
- Labor representation on all relevant decarbonization decision-making bodies.
- Optimizing existing workforce development system resources (i.e. Worker Retraining, Opportunity Grant, and other WIOA services) for career changes based on worker choice.

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