

Policy Brief

December 2018

CLEAN BUILDINGS

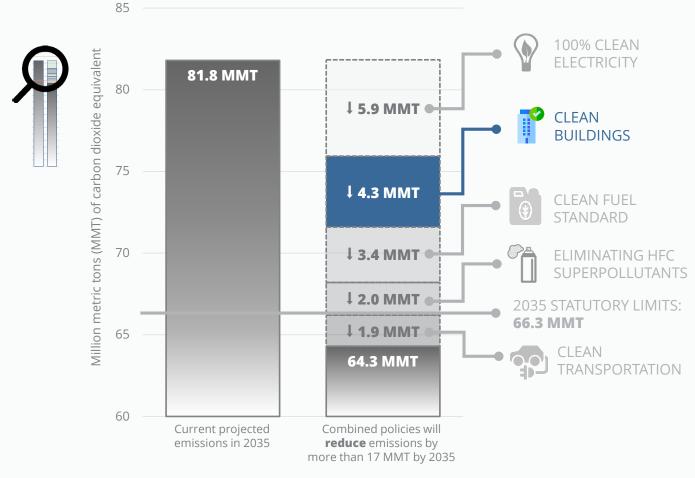
Buildings are the most rapidly growing source of greenhouse gas emissions in Washington state. While statewide emissions have grown 10 percent overall since 1990, building emissions have jumped by 50 percent, more than any other source in our state.

The big reason is population growth. As Washington's population continues to increase, so does the number of new homes and business spaces being constructed. Each time we construct a new building or remodel one, we either lock in inefficient energy use or we embrace materials and technologies that will save energy and reduce emissions for decades to come. The longer we wait to enact higher standards, the greater the missed opportunity.



www.governor.wa.gov

ACHIEVING WASHINGTON'S GREENHOUSE GAS EMISSION REDUCTION TARGETS IN 15 YEARS



Changing the way we construct our homes and offices can keep more than 5.6 million metric tons of carbon pollution out of Washington's air by 2035, generate thousands of jobs and save ratepayers hundreds of dollars on their energy bills.

The good news is the solution to cutting building emissions lies in energy efficiency, which is the fastest, cheapest way to cut carbon emissions and other harmful pollution. Efficiency is a resource, like any other source of energy. But unlike other sources of energy, when we tap into it to meet our needs, we actually lower our energy bills and reduce our emissions.

In the Pacific Northwest we're good at developing energy efficiency. We can meet 100 percent of our electricity growth over the next 20 years with it. But to do that in a way that also allows us to reach our emissions reductions targets, we'll need more efficiency than we're getting through current programs.

Advanced technologies, smart appliances and whole building energy management systems are creating new opportunities. Through policy and investment, we can ensure our communities take advantage of the rapid pace of innovation.

Summary of legislation

Build ultra-efficient new buildings

The Legislature set a goal to cut new building energy use 70 percent by 2030, making highly efficient buildings the norm for new construction. There is much more the state can do to ensure we achieve this goal.

Establish a "stretch code" that provides tools to local governments that want to innovate and lead.

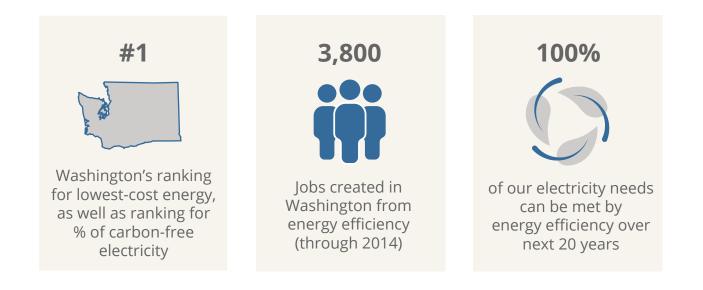
A building code effectively defines the least energyefficient building permitted by law. Voluntary stretch codes have been implemented across the nation to empower local governments that want to "stretch" beyond current code to reduce energy use in new buildings.

$\label{eq:alpha} 2 \begin{array}{l} \mbox{Allow local governments to voluntarily} \\ \mbox{adopt residential stretch codes ahead of schedule.} \end{array} \\$

Local governments can be a key partner in achieving our goals but we need to remove barriers they face to taking action. Once the state stretch codes are set, local governments must have the authority to adopt them for the residential sector as they now do in the commercial sector.

3 Leverage state investments to encourage net zero carbon homes and schools, and transform public buildings

- Develop 750 new units of affordable housing to net zero carbon or passive energy use standards through the Housing Trust Fund ultra energyefficient construction pilot phase 2. (\$10 million)
- Build four schools to net zero carbon/passive standards through the K-12 construction budget. (\$10 million)
- Transform public buildings by investing in solar energy systems, deep energy efficiency retrofits and improvements in building systems that will reduce energy consumption and operating costs. (\$35 million)
- Identify and rank deep energy retrofit priorities in state building stocks to guide efficiency investments. (\$750,000)





Retrofit and modernize buildings

Retrofitting and modernizing our buildings will take time, but is essential. The biggest gains come from large commercial buildings that compose a fraction of our buildings statewide yet account for 25 percent of our building-related emissions.

- 1 Implement an early action energy reduction incentive program.
- Provide a financial incentive to owners of large commercial building (50,000 square feet or larger) to retrofit their buildings to reduce energy consumption and emissions.
- Collaborate with public and private utility companies to administer this new conservation program and allow them corresponding credit on their public utility tax.

2 Adopt a performancebased energy standard for commercial buildings.

- Large commercial buildings will meet whole building energy standards beginning in 2026.
- Offer temporary incentives for market transformation activities that promote the installation of ultra-efficient end-use equipment such as grocery refrigeration, CO2-based heat pumps, etc.

Adopt energy efficiency standards for equipment.

Energy standards for equipment save consumers and businesses money and benefit local economies as savings are often spent locally. They also reduce pollution and improve

reliability in the electrical and water systems we all rely on.

 Adopt energy efficiency standards for more than 20 products where substitute products are already available on the market and businesses and consumers will receive direct economic benefits.

Adopt an efficiency standard for natural gas.

• Increased energy savings and reduced energy costs and emissions

can be achieved through expanded efficiency in the natural gas distribution system.

 Require that natural gas distribution companies achieve greenhouse gas emission reductions from combustion of natural gas sold and delivered to residential and commercial customers.



Share of Washington's greenhouse gas emissions that comes from buildings