



Land Use & Environment Committee

Climate Action Plan Implementation/Energy Efficiency Code Updates

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Title

Climate Action Plan Implementation/Energy Efficiency Code Updates

Recommended Action

Committee Recommendation:

Update only. No action requested.

City Manager Recommendation:

Update only. No action requested.

Report

Issue:

Where to receive an update on implementation of the Thurston Climate Mitigation Plan, building decarbonization, and considerations of equity issues.

Staff Contact:

Pamela Braff, PhD, Climate Program Manager, 360.753.8249

Presenter(s):

Pamela Braff, PhD, Climate Program Manager

Erik Jensen, Building Plans Examiner (Interim Building Official)

Background and Analysis:

In February 2021, the cities of Olympia, Lacey, Tumwater, along with Thurston County accepted the Thurston Climate Mitigation Plan (TCMP) as the regional framework to substantially reduce local contributions to climate change. The TCMP provides a roadmap to reduce community-wide greenhouse emissions 45% below 2015 levels by 2030 and 85% below 2015 levels by 2050.

In 2018, greenhouse gas emissions in the Thurston County region were about 3.2 million metric tons of carbon dioxide equivalent (MTCO_{2e}); and emissions have been increasing over time, with a 7% increase since 2015. The built environment, including the consumption of electricity and natural gas to power, heat, and cool our buildings, makes up nearly 60% of regional greenhouse gas emissions. Key strategies for building decarbonization include:

- Supporting state-level action to generate electricity with 100% renewable sources.
- Increasing the energy efficiency of homes and businesses.
- Electrifying buildings (i.e., phasing out the use of natural gas for heating and cooking).
- Increasing the production of local renewable energy through onsite solar.
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Clean Energy Transformation Act (CETA)

In 2019, Washington State passed the Clean Energy Transformation Act (CETA), which sets milestones for electric utilities to transition toward a clean fuel standard. Under CETA, utilities must eliminate coal-fired electricity by 2025, become greenhouse-gas neutral by 2030 (using offsets, if necessary), and provide 100 percent renewable energy by 2045. These changes will dramatically reduce emissions from the building sector. If implemented as intended, electricity will go from contributing almost half of our local emissions (43%) to contributing zero.

Building Electrification

After electrification, natural gas represents the second largest source of greenhouse gas emissions from the built environment in the Thurston region (21% of building emissions). As electricity is increasingly produced by low-carbon sources such as wind and solar, shifting more appliances and heaters to electricity will substantially reduce local greenhouse gas emissions. Phasing out natural gas is identified in the TCMP as a key strategy to achieve the most substantial reductions in local greenhouse gas emissions.

Energy Efficiency

Increasing energy efficiency is critical to support the deployment of renewable energy and building electrification. Updates to the Washington State Building Code will significantly increase energy performance requirements for new residential and commercial development. However, these requirements do not address existing buildings and homes, many of which were built to less efficient standards. Retrofitting existing buildings to increase energy efficiency is also an important strategy for local action.

Local Renewable Energy

Shifting the production of electricity to renewable sources is one of the most important strategies to reduce greenhouse gas emissions. The most efficient way to shift our grid will likely involve large scale renewable energy infrastructure in other areas of the state and country. However, local distributed renewable energy infrastructure can also support this transition, while increasing local resilience and energy independence.

Neighborhood/Community Interests (if known):

During the TCMP planning process, many stakeholders and community members voiced support for taking significant action to reduce the region's greenhouse gas emissions. These community members expressed the importance of both development and implementation of the TCMP. Community members have also continued to express the importance of applying a climate lens in all City planning and decision-making processes.

Options:

1. Receive the update.
2. Do not receive the update.
3. Receive the update at another time.

Financial Impact:

None at this time.

Attachments:

Presentation

Mitigation Plan