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Northwest Power and Conservation Council

June 4, 2019

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MEMORANDUM

TO: Council Members

FROM: Elizabeth Osborne

SUBJECT: Presentation by Washington State Energy Office Staff on 2019 Energy Legislation

BACKGROUND:

Presenters: Panel of presenters from the State Energy Office within the Washington Department of Commerce;

- Dr. Glenn Blackmon, Energy Policy Manager
- Chuck Murray, Senior Energy Policy Specialist
- Dr. Sarah Vorpahl, Senior Energy Policy Specialist

Summary: Washington State Energy Office staff will brief the Council on this year's legislative session outcomes. The 2019 legislative session in Washington concluded in April, and several pieces of legislation were adopted which will affect resource development decisions in the regional electric system. Legislation included new appliance standards, requirements for natural gas efficiency and renewable natural gas, performance standards for buildings, and building code changes, in addition to the 100 percent clean energy standard set by the Clean Energy Transformation Act.

More Info: News release from the Office of Governor Jay Inslee on the Washington Clean Energy Transformation Act;
<https://www.governor.wa.gov/sites/default/files/documents/clean-electricity-policy-brief-bill-signing.pdf>



— WASHINGTON GOVERNOR —

JAY INSLEE

POLICY BRIEF

May 2019



WASHINGTON ENACTS STRONGEST CLEAN ELECTRICITY STANDARD IN THE NATION

Washington is leading the transition to 100 percent clean electricity, creating family-sustaining jobs and ensuring that all customers benefit from the transition.

Washington this year became the fourth state to enact legislation to transition to 100 percent clean electricity. The Washington Clean Energy Transformation Act commits Washington to aggressively transform its electricity system and to transition to 100 percent clean electricity over the next 25 years.

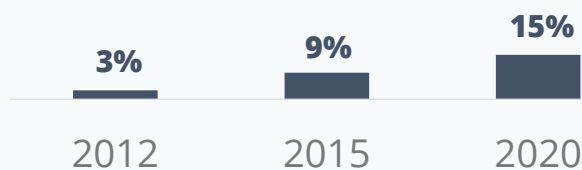
With our wealth of carbon-free hydropower, Washington has some of the cleanest electricity in the nation. But electricity generation remains the largest source of carbon emissions worldwide and is the third-highest emitting sector in our state, after transportation and buildings. The legislation (Senate Bill 5116), spearheaded by Sen. Reuven Carlyle and Rep. Gael Tarleton, will make Washington one of the first states in the nation to eliminate coal power, including “coal-by-wire” from out of state, by 2025. The law requires Washington utilities to transition to a carbon-neutral electricity supply by 2030 and puts the state on a path to entirely eliminate fossil fuels from electricity generation by 2045.



Putting Washington on a path to entirely eliminate fossil fuels from electricity generation by 2045

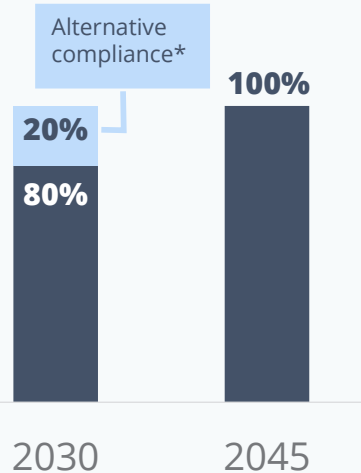
Clean energy standards under previous law (Initiative 937)

Percent eligible clean electricity
(does not include hydropower)



Washington Clean Energy Transformation Act standards

Percent clean electricity



*Alternative compliance options include purchasing renewable energy certificates, investing in energy transformation projects, paying a fee, etc.

Achieving clean energy standards

To achieve the 2030 standard, utilities must replace coal-based resources with nonemitting and renewable energy resources such as solar and wind power, use hydropower resources more efficiently and effectively, and increase overall energy efficiency. Some parts of the state are already very close to achieving this goal. In other areas, meeting the goal will require a transformation in the energy mix, including incorporating innovative nonemitting technologies such as energy storage, smart grid technologies and electric vehicle charging. By 2045, 100 percent of electricity consumed in Washington will be clean.

Ensuring an equitable transition

The law includes innovative provisions to protect low-income customers and ensure that all customers benefit from the transition to clean energy, including vulnerable populations and communities most highly affected by climate change and environmental pollution. Implementation of the standards will be guided by a cumulative impact analysis of environmental and health disparities performed by the Department of Health. The law also requires utilities to provide energy assistance to low-income customers, and to improve and better target these programs to vulnerable populations and households with high energy burdens.

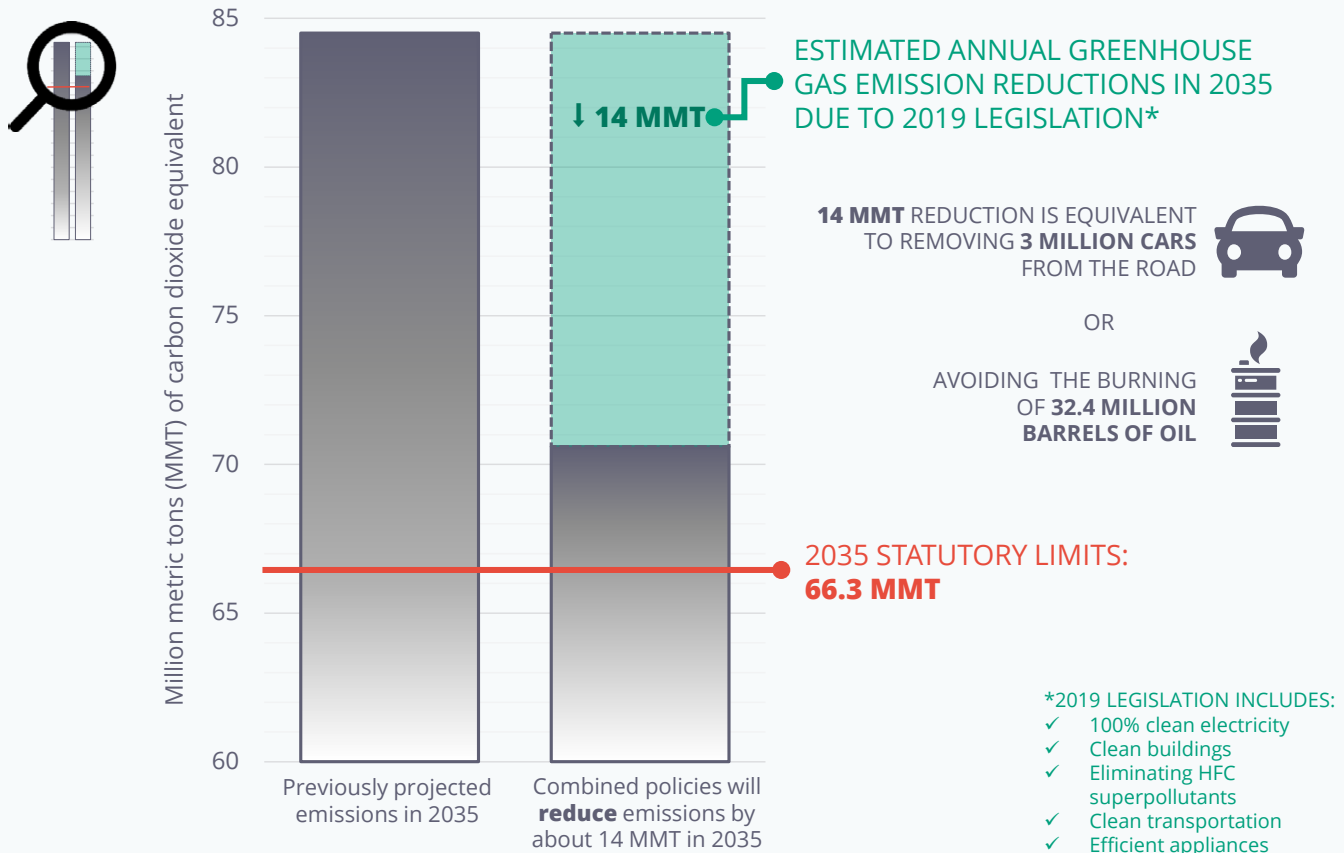
Supporting our clean energy workforce

Further, the law supports Washington's clean energy workforce by providing incentives for developing clean energy projects using strong labor standards. The legislation extends and modifies the sales and use tax exemption for certain renewable energy machinery and equipment to support the use of strong workforce standards, such as prevailing wage, apprenticeship utilization and preferred hiring for women and minority-owned businesses.

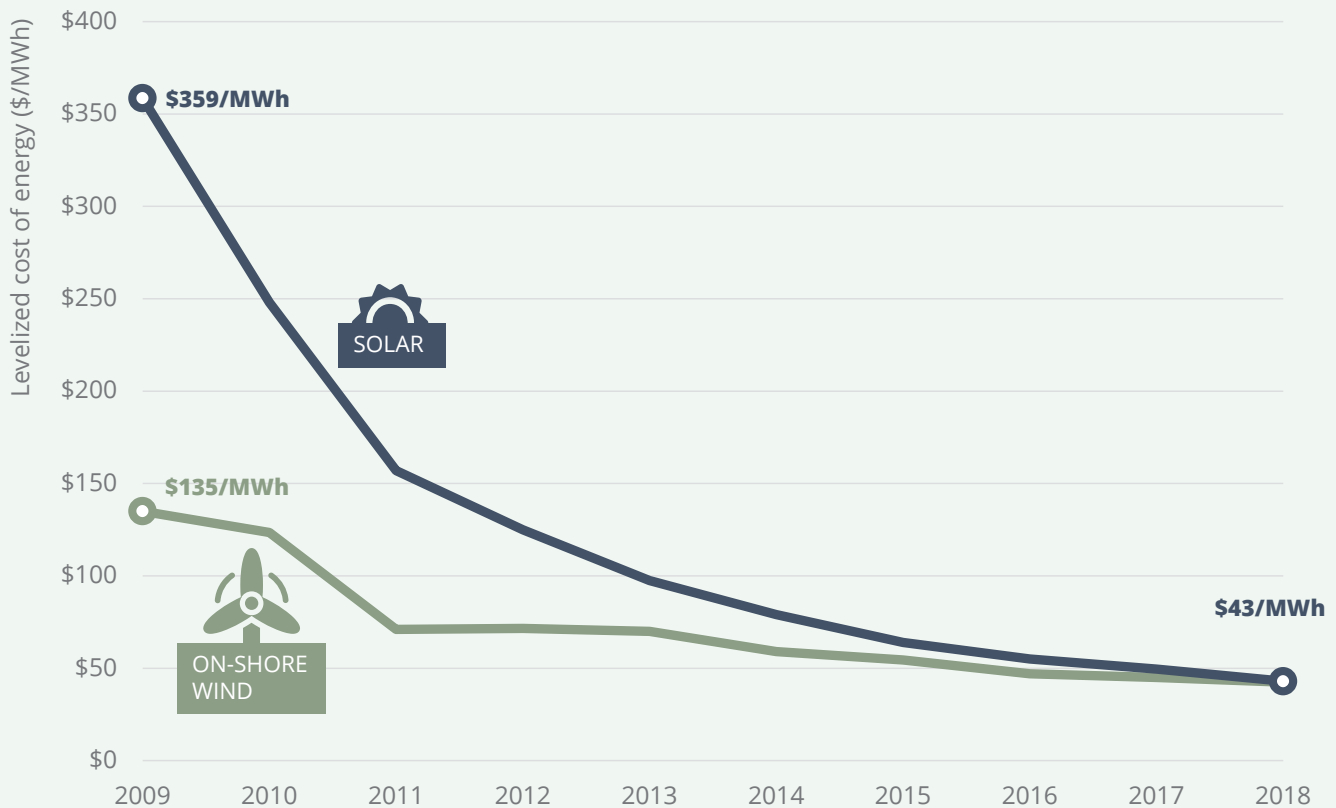
Protecting reliability and affordability

Finally, the legislation provides flexibility for utilities to make this transition in a reasonable time frame while maintaining reliable, affordable electricity service for their customers. Different utilities may pursue different pathways, depending on their resource mix and customer demands. The legislation provides regulatory and planning tools that will enable utilities to meet these goals while ensuring public participation and appropriate oversight. For example:

This package of legislation is the state's biggest step yet toward reaching the greenhouse gas emissions reductions needed to reach **2035** statutory limits



Since 2009, prices of solar and wind power have fallen dramatically



Source: Lazard's Levelized Cost of Energy Analysis, version 12.0, Nov. 2018

For example:

- Utilities must begin taking into account the costs of carbon pollution when evaluating energy resources.
- Utilities must develop clean energy plans on an iterative basis, including both short-term and long-term plans, which will demonstrate how utilities will meet the standards at the lowest reasonable cost.
- The Utilities and Transportation Commission is authorized to use performance-based rate making and other regulatory mechanisms to help utilities achieve legislative goals.

The price of clean energy continues to fall, and in many cases, is already competitive with conventional energy sources. In the past 10 years, wind energy prices have fallen by almost 80 percent and solar energy prices have fallen by almost 90 percent, far exceeding expectations. In the near term, this bill requires utilities to replace retiring coal plants with clean energy, which is already available at competitive prices. Technology advancements will only make achieving the standards even more cost effective in the future.



Department of Commerce

Washington's 2019 Clean Energy Legislation

*Chuck Murray, Sarah Vorpahl, Glenn Blackmon
Washington State Energy Office*

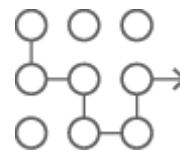
June 11, 2019

We strengthen communities

The Department of Commerce touches every aspect of community and economic development. We work with local governments, businesses and civic leaders to strengthen communities so all residents may thrive and prosper.



Energy



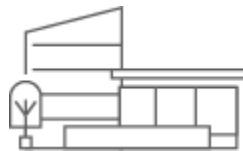
Planning



Infrastructure



Business Assistance



Community Facilities



Housing



Safety /
Crime Victims

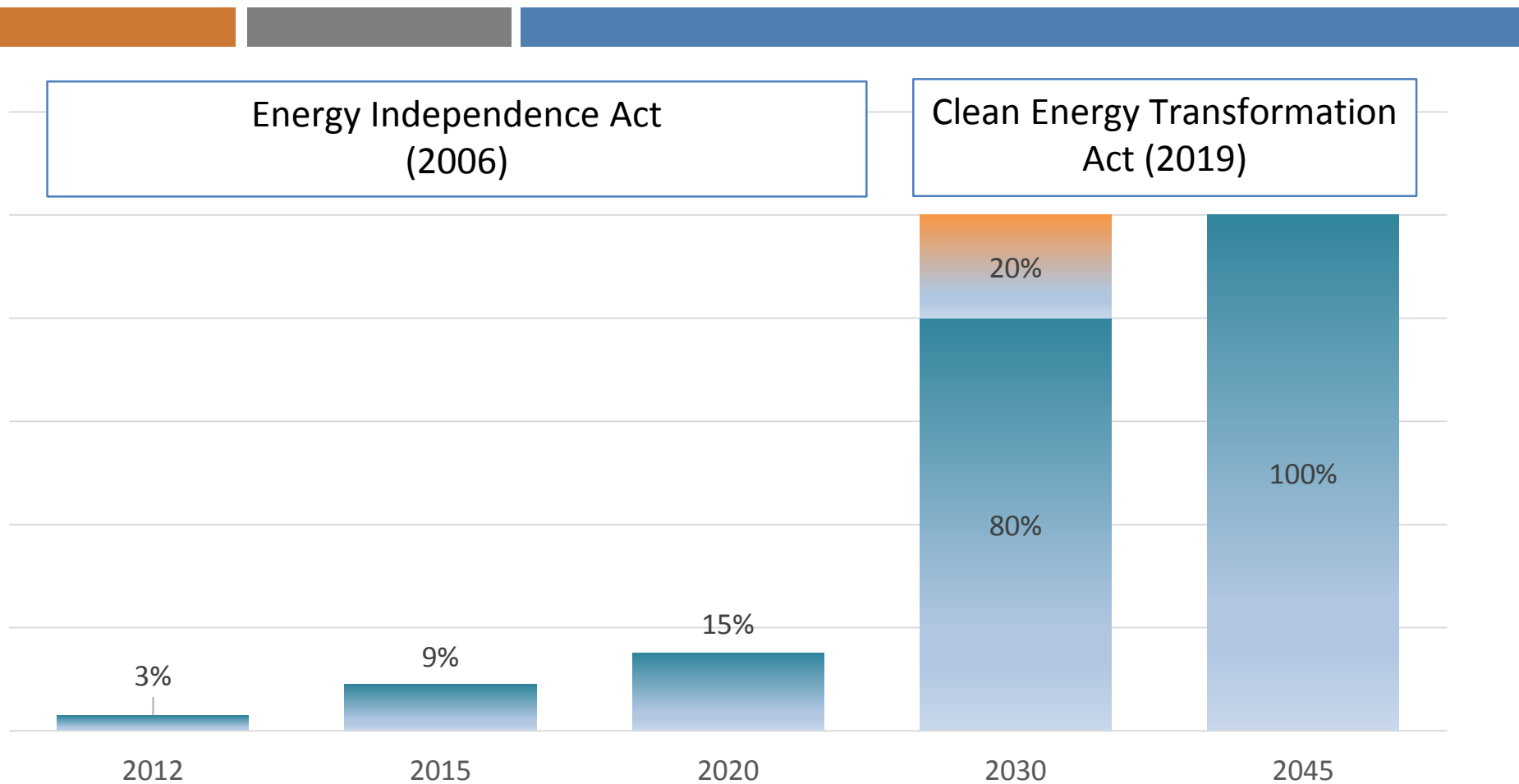


Overview of Washington Legislation

- SB 5116 –
Clean Energy
Transformation Act
(CETA)
- HB 1444 –
Appliance
Standards
- HB 1257 –
Clean Buildings



Clean Energy Transformation Act



Clean Energy Transformation Act

- Applies to all electric utilities in Washington
- 2025: Eliminate coal from retail portfolios
- 2030: Greenhouse gas neutral standard
 - At least 80 percent of electricity delivered to load must be renewable or non-emitting
 - Alternative compliance options for up to 20 percent
 - All renewable claims documented with RECs
- 2045: 100 percent renewable or non-emitting retail electricity supply



CETA – Enhanced planning requirements

- Beginning in 2022, utilities must develop clean energy implementation plans
 - Interim targets for efficiency, demand response, and renewables
- Utilities must include social cost of carbon
- Commerce must develop an updated state energy strategy by 2021



CETA – Safeguards for rates, vulnerable populations, and reliability

- Allows utilities to limit growth of compliance costs to 2 percent of retail rates
- Requires assessment of energy burden and adequacy of energy assistance programs
- Allows temporary suspension to protect reliability
- Regular assessment by Commerce in consultation with experts and stakeholders
- Work to align with cap and trade states, prevent double-counting



CETA – Revisions to existing renewable portfolio standard



- Incremental hydro from federal projects eligible starting in 2020
- Clarifies and standardizes definition of renewable energy certificates



CETA implementation activity

Working with Utilities and Transportation
Commission on many issues

Stakeholder information and email signups will be posted here:
www.commerce.wa.gov/ceta



Appliance standards (HB 1444)



Appliance standards (HB 1444)

- First WA update since 2009
- 17 new product types
- Combination of CA standards, ENERGY STAR, Water Sense, and stalled federal standards
- Coordinated with other states
 - Appliance Standards Awareness Project base bill with changes

Appliance standards (HB 1444)

- Multiple product standards to reduce energy and water use
- Backstop standards to protect consumers from change at federal level
- Effective dates vary; most are effective for products manufactured starting in 2021



Products with new efficiency standards

- Water products
 - Faucets
 - Showerheads
 - Spray sprinkler bodies
 - Urinals
 - Water closets
 - Water coolers
- Lighting products
 - High color rendering index (CRI) fluorescent lamps
 - General service lamps
- Commercial products
 - Fryers
 - Dishwashers
 - Steam cookers
- Other products
 - Air compressors
 - Computers and computer monitors
 - Residential ventilating fans
 - Uninterruptible power supplies



Electric storage water heaters

- Design requirement is first-in-nation
 - Integrated communication port using CTA-2045 standard
 - Additional communication equipment required (module)
 - Support demand response programs by utilities or third-party aggregators
 - Additional implementation work required by utilities



Commerce implementation activity



Rules update starts in July

Background information, future announcements, and email
signup form posted here:

www.commerce.wa.gov/appliances



Clean Buildings – HB 1257



Clean Buildings – HB 1257

- State energy performance standard for commercial buildings
- Natural gas efficiency and renewables
- Building codes
 - EV charging infrastructure requirements for new buildings
 - Changes to energy code development criteria

Clean Buildings – Objectives



“In developing energy performance standards, the department shall seek to maximize reductions of greenhouse gas emissions from the building sector.”

<https://lawfilesexternal.wa.gov/biennium/2019-20/Pdf/Bills/Session%20Laws/House/1257-S3.SL.pdf>



State energy performance standard for commercial buildings

- Applies to non-residential, hotel, motel, and dormitory buildings greater than 50,000 SF
- Develop rules by November 2020
- Early adopter incentive program beginning July 2021 (\$75 million funded)
- Mandatory compliance required beginning in 2026



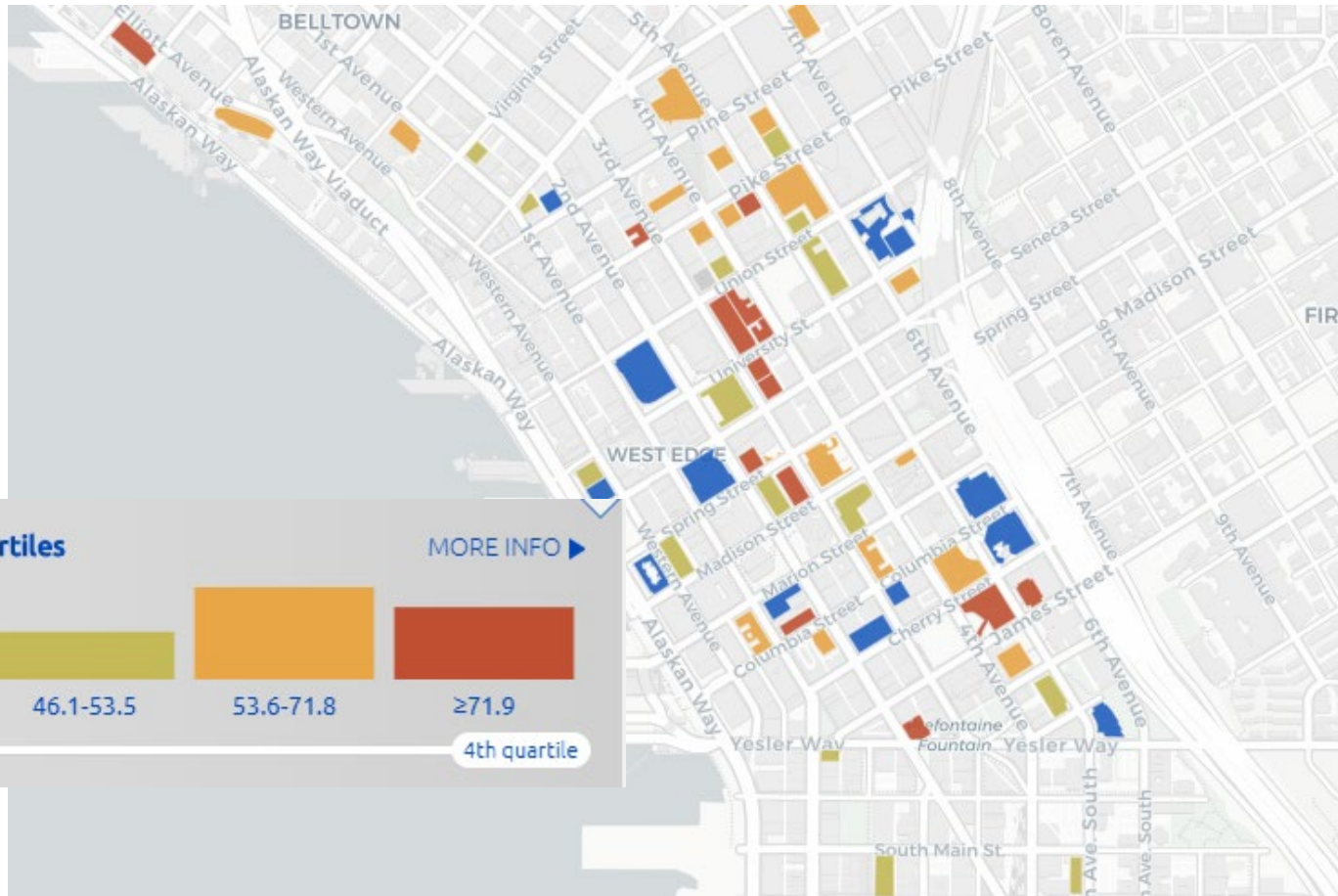
Based on ASHRAE Standard 100

- Energy performance targets by building type
 - Energy Utilization Index (EUI) (Btu/sf/year)
- Building qualifies if EUI is below target
- Conditional compliance activities required if EUI exceeds target
 - Energy management plan, energy audits, efficiency investment requirements

Rules to implement the building performance standard

- Adopt ASHRAE 100 with modifications
- Set EUI targets below average for each building type
- Adopt economic evaluation criteria for conditional compliance project implementation
 - Optimized bundle of efficiency measures that has a cost benefit ratio greater than 1.0
- Administrative procedures for incentive program and mandatory compliance

State-specific EUI development - large office



Incentive program (July 2021)

- Eligibility
 - Covered building plus multifamily buildings
 - Buildings EUI 15 points greater than target
- Payment authorized after building meets the target
 - Reservation system will be established
- Administered by Commerce
- Payment will be made by the serving utilities
- Utilities will claim cost of incentives plus expenses through a public utility tax credit



Mandatory compliance (2026)

- Building owner compliance
 - Report qualifying EUI to Commerce
 - Demonstrate the building is taking conditional compliance actions
 - Demonstrate the building is exempt
- Fines for non-compliance
 - \$5,000 plus up to \$1 square foot per year



Commerce implementation activity



Background information, future announcements, and email
signup form posted here:

www.commerce.wa.gov/buildings



Gas utility conservation and RNG requirements

- Conservation standard comparable to electricity mandate
 - Must use specific social cost of carbon value
- Gas companies authorized to include renewable natural gas (RNG) in standard product
- Gas companies required to offer customers by tariff a voluntary RNG product
- Oversight by Utilities and Transportation Commission

Building codes

- Greater electric vehicle charging infrastructure requirements
 - Must plan for charging in 10% of spaces
 - Must provide infrastructure for future installations (room for equipment, raceways)
- Energy code development cost studies
 - Must achieve state efficiency targets at lowest cost
 - No longer requires all measures to be cost effective
- Washington State Building Code Council will develop rules





Department of Commerce

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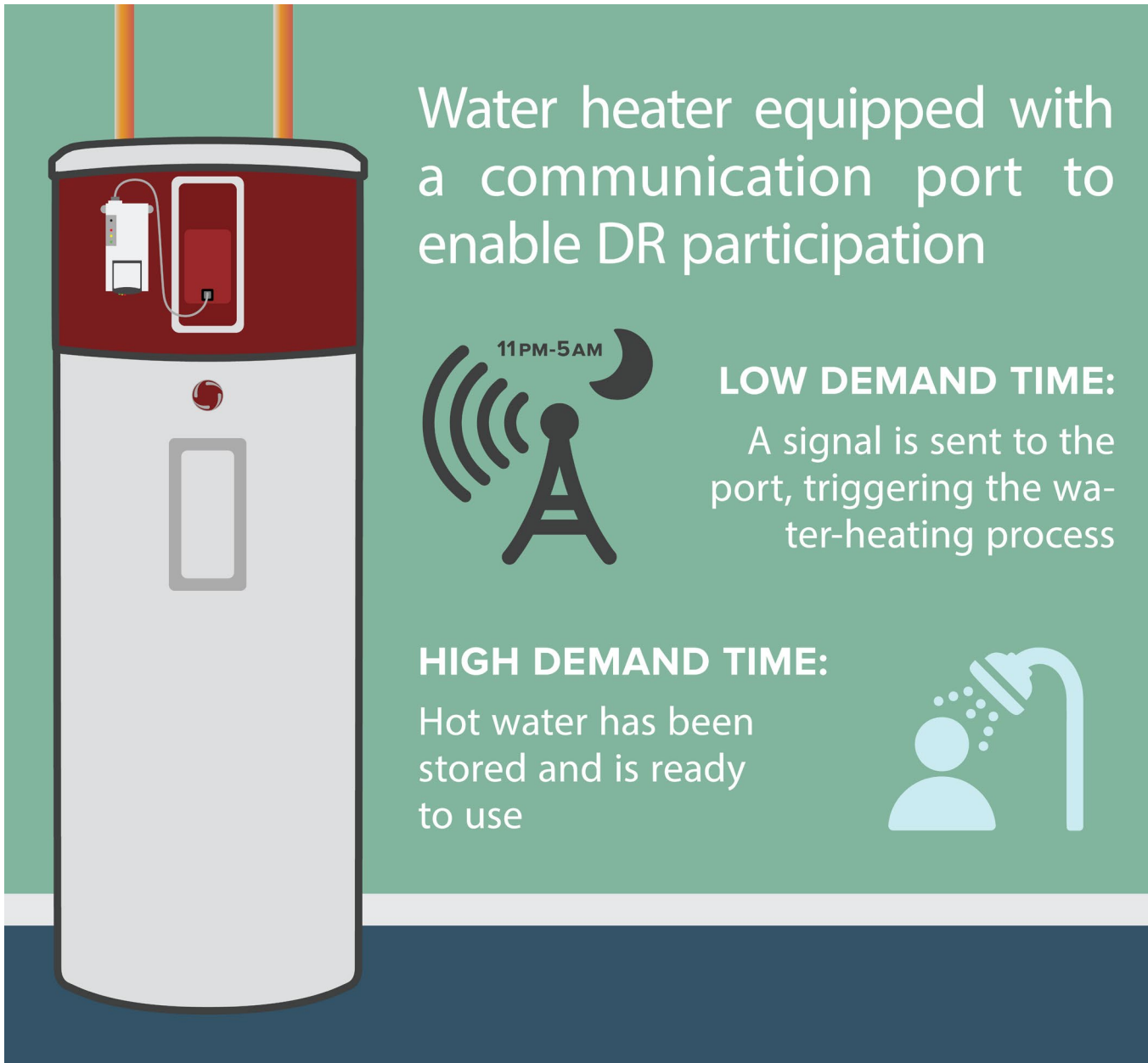
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Backup slides on water heaters





2019 WA Legislative Action

- Establishes design requirement for electric storage water heaters
- Covered water heaters must have a modular demand response communications port:
 - Compliant with ANSI/CTA-2045-A communication interface standard, or equivalent
 - Compliant with ANSI/CTA-2045-A application layer requirements

2019 WA Legislative Action



- Defines electric storage water heater:
 - Consumer product
 - Input rating of 12 kW or less
 - Storage volume 40-120 gallons
 - Supplies water at less than 180 degrees F.
- Applies to units “installed, sold, or offered for sale, lease, or rent” in Washington

2019 WA Legislative Action



- Sets effective date:
 - Units manufactured on or after January 1, 2021
- Provides flexibility to Department of Commerce:
 - May suspend or delay effective date based on public interest
 - May adopt a later version of the standard
 - May interpret “equivalent” standard



EUI – All Buildings

