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Emerging Greenhouse Gas Regulations in Washington and Oregon

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Presentation Agenda

- > Washington Clean Air Rule
- > Proposed Washington Carbon Tax (I-732)
- > Oregon HB 4036→SB 1547 (Passed)
- > Oregon SB 1574 (Failed)
 - ❖ ODEQ Greenhouse Gas Market Study
- > EPA's Clean Power Plan (Stayed)



Washington Clean Air Rule

WA Clean Air Rule (CAR)

- > Finalized September 15, 2016
- > Codified in WAC 173-442
- > Takes effect October 17, 2016
- > Standards begin in 2017 for:
 - ❖ Stationary sources
 - ❖ Petroleum product producers
 - ❖ Natural gas distributors
- > Energy-intensive and trade-exposed (EITE) sources / petroleum product importers to join program in 2020.

What Is an EITE Source?

- > Has listed primary NAICS code in CAR
- > List includes:
 - ❖ 322110: Pulp mills
 - ❖ 322121: Paper (except newsprint) mills
 - ❖ 322122: Newsprint mills
 - ❖ 322130: Paperboard mills
- > Can choose not to be treated as EITE source
 - ❖ Decision cannot be reversed (even if operational control change)
 - ❖ Must notify ECY by January 1, 2017 or by January 1st of first year in baseline period

CAR Applicability Thresholds

Washington Compliance Threshold	
Compliance Threshold (MT CO ₂ e/year)	First Compliance Period (Calendar Year)
100,000	2017-2019
95,000	2020-2022
90,000	2023-2025
85,000	2026-2028
80,000	2029-2031
75,000	2032-2034
70,000	2035 and beyond

Treatment of GHG from Biomass Combustion

- > Per WAC 173-442-040 Exemptions:
 - ❖ Covered GHG emissions do not include “CO₂ from industrial combustion of biomass in the form of fuel wood, wood waste, wood by-products, and wood residuals...”
- > Therefore, biogenic GHG does not contribute to applicability determination or compliance obligation

Reduction Requirements

- > Non-EITE sources: +1.7% decrease annually from baseline GHG emission rates
 - ❖ From applicability date through 2035
 - ❖ Starting in 2036, remains constant at 2035 value
- > EITE sources: Ecology to determine efficiency improvement rate
 - ❖ Based on relative emissions intensity for each sector (production-based)
 - ❖ Varies between 0.7% and 2.7% annual decrease from baseline depending on performance
 - ◆ Bottom 25th percentile: decrease from 1.7% to 2.7%
 - ◆ Top 25th percentile: decrease from 0.7% to 1.7%
 - ◆ Between top 25th and bottom 25th: 1.7% decrease

Non-EITE Baseline

Covered Party	Operated 2012-2016 (at least 3 yrs)	Average GHG Emissions (MT CO ₂ e/yr)	Ecology Action
Category 1	Yes	≥ 70,000	Assign baseline*
Category 2	Yes	< 70,000	Assign baseline when emissions reach 70,000 MT or if requested**,***
	No		
	N/A or No	≥ 70,000	Assign Baseline**,***

* Category 1 baseline: Avg of 5-year reported/assigned emissions (2012-2016); or at least avg of 3-years (when ECY omitting years that meet reg criteria)

** Category 2 baseline: Avg of reported emissions from 1st 3 consecutive years (after 2012) with avg > 70,000 MT; or when requested by voluntary participant

*** New/modified equipment: Avg 1st 3 years reported emissions under normal operation or ECY benchmarking (90% most efficient facility in all surveyed stationary sources using benchmarking)

EITE Baseline

- > EITE sources must report production data along with GHG annual emissions
- > ECY calculates output-based baseline for each EITE source
 - ❖ Remains constant
 - ❖ Using average GHG emissions and production rates for 2012-2016, if available
 - ❖ Otherwise, use average from first three consecutive post-2012 years with reported emissions of at least 70,000 MT

Compliance Obligation

- > (Compliance obligation) = (covered GHG emissions for compliance period) - (baseline GHG emission rate for each year of compliance period discounted by emission reduction requirement)
- > If difference > 1, must acquire Emission Reduction Units (ERUs)

Sample Compliance Obligation (100,000 MT/yr source)

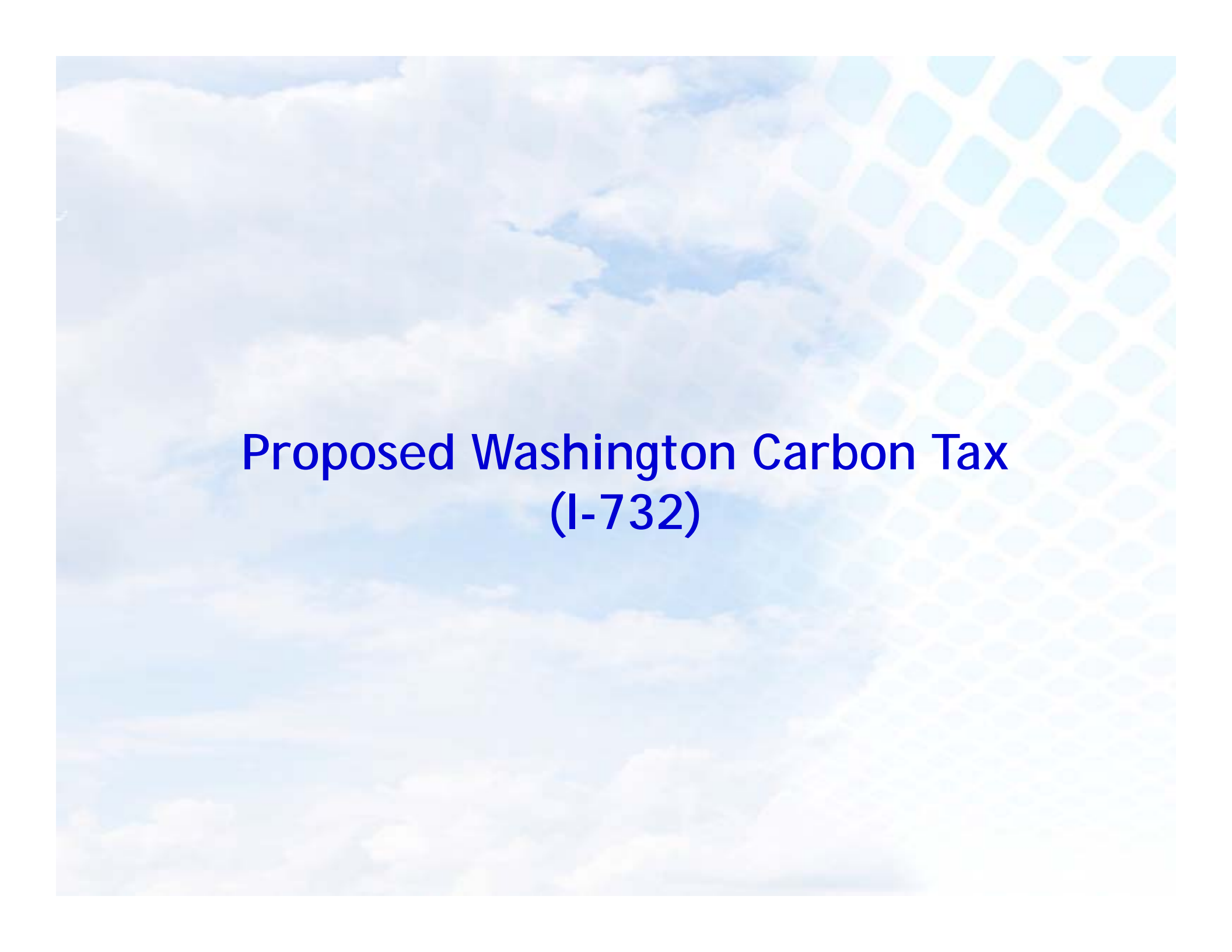
Calendar Year	Baseline Discount Percent	Discounted Baseline (MT/yr)	Reported Emissions (MT/3-yr)	Discounted Baseline (MT/3-yr)	Compliance Obligation (ERUs)
2017	1.7%	100,000			
2018	3.4%	98,300			
2019	5.1%	96,629			
2020	6.8%	94,986			
2021	8.5%	93,371			
2022	10.2%	91,784			
2023	11.9%	90,224			
2024	13.6%	88,690			
2025	15.3%	87,182			

Compliance Options

- > ERUs can be created by:
 - ❖ Directly cutting emissions
 - ❖ Purchasing reductions from other businesses
 - ❖ Obtaining ERUs from projects in WA
 - ❖ Purchasing allowances from outside of WA

Compliance Reporting

- > 3-year compliance reports
 - ❖ Demonstrate how CAR reduction requirements satisfied
 - ❖ Verified by eligible third-party
- > Annual GHG reports will continue to be required
 - ❖ Recent updates require reporting of production data, and other measures to allow for CAR implementation



**Proposed Washington Carbon Tax
(I-732)**

Initiative 732: WA Carbon Tax

- > On ballot in November
- > Starts at \$25 per MT CO₂,
 - ❖ Increase annually by 3.5% plus inflation
 - ❖ Cap at \$100 per MT (2016 dollars)
- > Tax assessed on fossil fuels consumed in state and carbon content of imported electricity
- > Tax used to
 - ❖ Offset state sales tax rate by 1%
 - ❖ Eliminate B&O tax for manufacturers
 - ❖ Fund “Working Families Rebate” for low-income households

Initiative 732: WA Carbon Tax

- > Tax “swap” phased in over two years
 - ❖ Year 1: Carbon tax = \$15/MT, Sales tax reduced by 0.5%
 - ❖ Year 2: Carbon tax = \$25/MT, Sales tax reduced by additional 0.5%
- > Natural gas price increase by 15% or more
- > Increase in purchased electricity price (depending on source)
- > Opponents prefer to incentivize clean energy, rather than new tax

The background of the slide is a light blue sky with soft, white clouds. On the right side, there is a decorative pattern of light blue squares arranged in a grid, with the squares becoming smaller and more faded towards the bottom right corner.

**Oregon House Bill 4036/Senate Bill 1547
(Passed)**

Clean Electricity and Coal Transition Plan

- > SB 1547 is newest iteration of bill, formerly HB 4036
- > Mandates Renewable Portfolio Standard (RPS) of 50% by 2040
 - ❖ Represents increase from current mandate of 25% renewables by 2025
- > Requires investor-owned utilities (IOUs) to phase out coal energy by 2035

Clean Electricity and Coal Transition Plan

- > Crafted with involvement of PGE and PacifiCorp
 - ❖ Head off ballot measures threatened by Renew Oregon, which had wide support
- > Will count pre-1995 biomass plants (and associated cogen) as renewables
- > Unlimited lifetime for REC's acquired before end of 2022
- > 4% cap on max premium IOUs can pay for mandate-compliant renewables

Clean Electricity and Coal Transition Plan

- > Utility regulators warn of increased consumer prices
- > PGE:
 - ❖ Needs 1,100 MW renewables
 - ❖ Forecasts annual rate increase of 1.5%
- > PacifiCorp:
 - ❖ Needs 1,300 MW renewables
 - ❖ Forecasts annual rate increase of <1%



**Oregon Senate Bill 1574
(Failed)**

Healthy Climate Act (SB 1574)

- > Requires EQC to adopt statewide GHG emission goals for 2025, and limits for 2035/2050 by implementing market-based program
- > Applicable to facilities with at least 25,000 MT CO₂e/yr
- > Market would begin January 1, 2020
- > Biomass emissions not covered
- > Did not pass through full House/Senate
 - ❖ Instead, lawmakers requested that DEQ study “market-based approach to controlling GHG emissions”
 - ❖ March budget included \$230,000 for study

ODEQ GHG Market Study

- > Study to be conducted throughout 2016
- > Report to be presented to legislature when it reconvenes in February 2017
- > Study to consider:
 - ❖ Program design elements
 - ❖ Linkage to other jurisdictions
 - ❖ Interaction with existing state programs
 - ❖ Business impacts from existing market-based programs



EPA's Clean Power Plan

Clean Power Plan

- > February 9, 2016: Supreme Court voted 5-4 to stay implementation until “litigation has played out”
- > Involved parties include two dozen states, utilities, coal companies, and business organizations
- > Final resolution not expected until 2017

Clean Power Plan

- > Oregon: Requires reduction in state-wide GHG emissions from all affected fossil fuel-fired EGUs to 871 lbs CO₂/net MWh by 2030
- > Washington: Requires reduction to 983 lbs CO₂/net MWh by 2030
- > CPP requires submittal of state plan by September 2016 (but currently under stay)
- > DEQ and Ecology will continue to develop plans, but no submittal until after stay



Questions?