CARBON PRICING AND TRANSPORTATION

HIGHWAY REVENUES SUBJECT TO COST RESPONSIBILITY

Joint Committee on Transportation

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FEB-25-2019

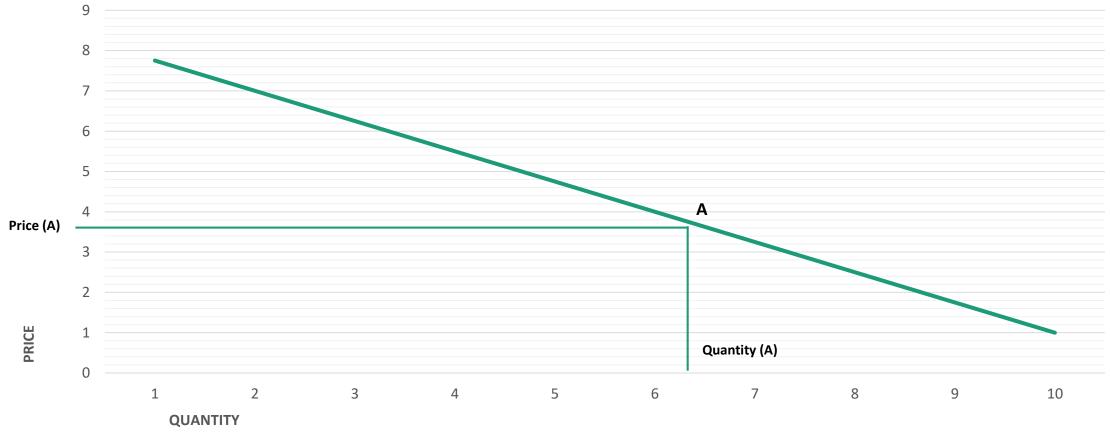
HIGHWAY COST ALLOCATION MODEL

- Model is delivered to LRO at the beginning of the session
- Used to calibrate costs and revenue
- Transportation packages and other revenue increases
- When C&I came up, the question was:
 - Does it effect highway revenue and why?
 - How does it interact with highway revenue and Cost responsibility?
- The way we understand it
 - The confluence of two systems
 - Pricing and the traditional Cap & Trade

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Emissions at Point A, price(A) and Quantity(A)

Downward sloping demand Curve



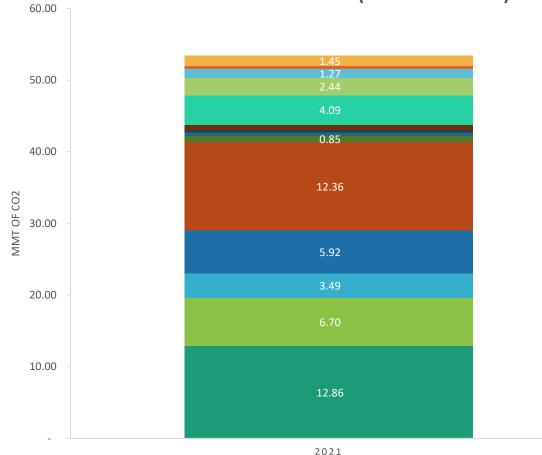
Quantity will go back (inversely related) to Q2

Pricing System effect



Oregon Total Emissions by category

(generic concept, not current legislation)

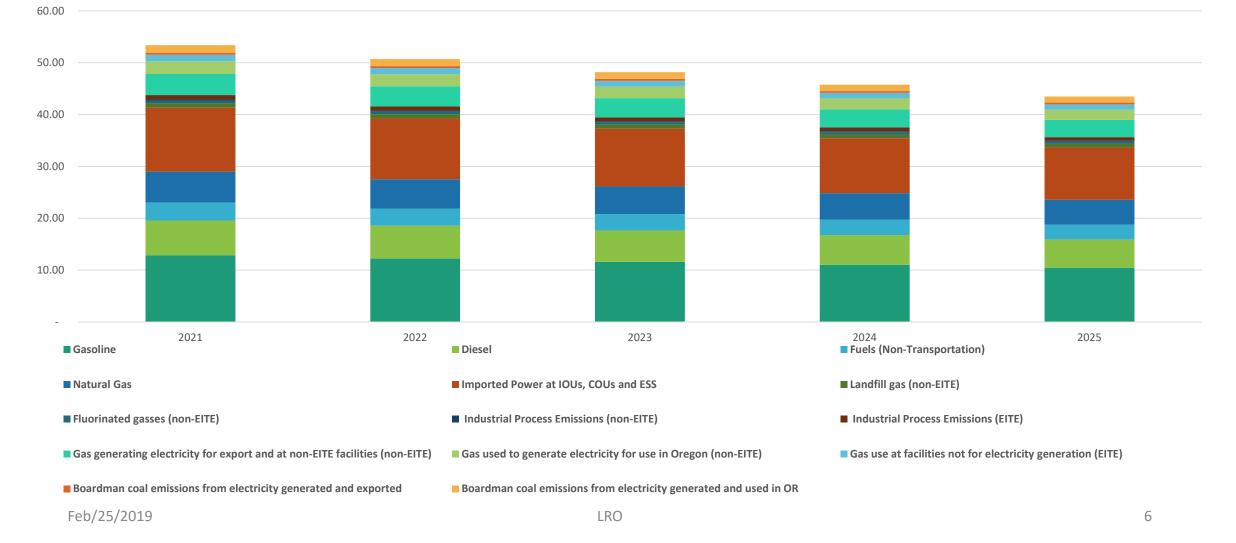


EMISSION (ALLOWANCES) BUDGETS IN A TARGET YEAR

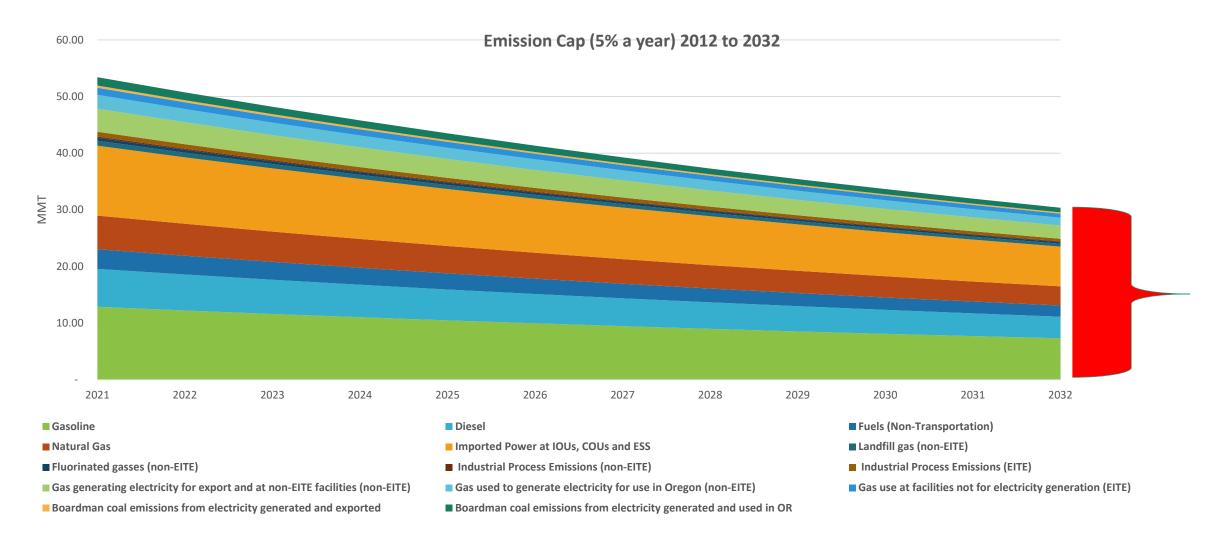
Boardman coal emissions from electricity generated and used in OR Boardman coal emissions from electricity generated and exported ■ Gas use at facilities not for electricity generation (EITE) Gas used to generate electricity for use in Oregon (non-EITE) ■ Gas generating electricity for export and at non-EITE facilities (non-EITE) Industrial Process Emissions (EITE) Industrial Process Emissions (non-EITE) ■ Fluorinated gasses (non-EITE) Landfill gas (non-EITE) Imported Power at IOUs, COUs and ESS Natural Gas Fuels (Non-Transportation) Diesel ■ Gasoline

Total allowances are the sum of the categories

Reduce Emission Budget (allowances) at 5% a year for 5 years Total budget is the sum of category budgets

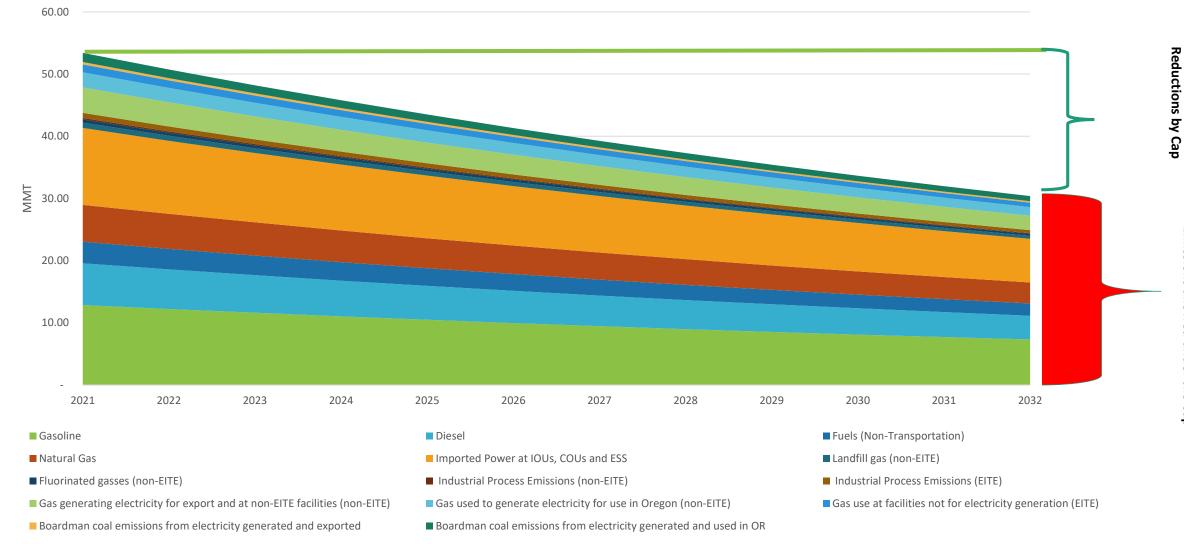


Emissions Allowed Under the Cap 2021 to 2032 (Traditional System of C&T, would allocate Free Allowances to all)



Reductions Expected By Imposing the Cap

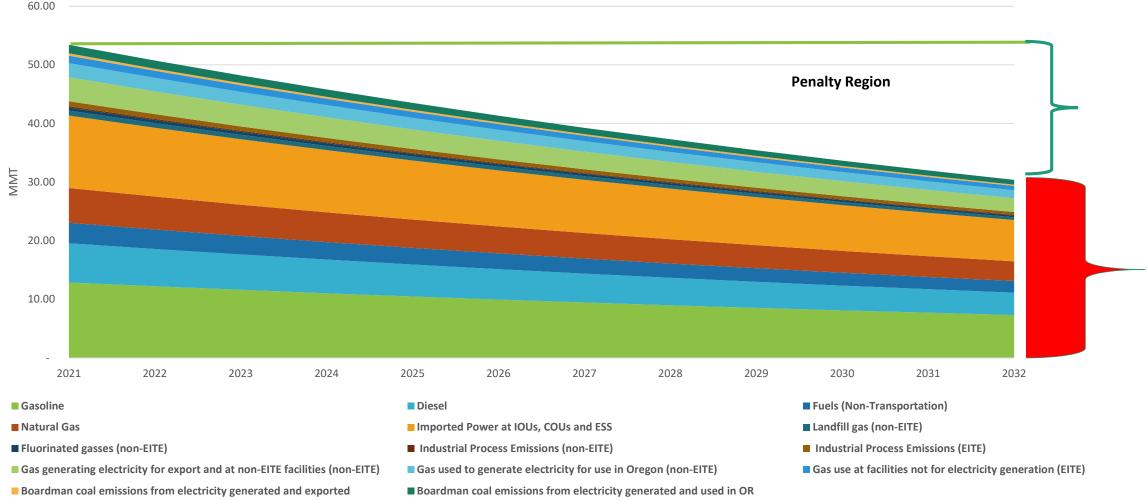
if all perfectly comply



Emissions allowed under the Cap

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Secondary Market in Trading allowances emissions stay under the cap. (or pay penalties)

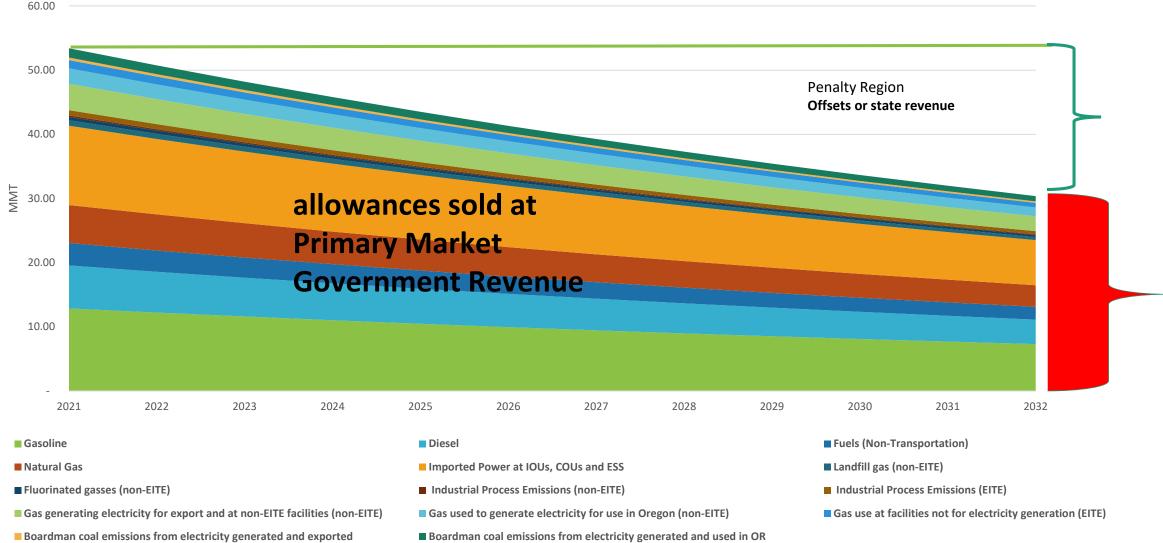


Reductions by Cap

Example of how allowance Trading works

Example 1		Budget allowed	end of	Need Trade	Example 2		Pudgot	End of	Need
-	Start	anoweu	period1	IIdue	2		Budget		
Firm A	9	8	10	2		Start	allowed	period1	Trade
Firm B	9	8	7	-1	Firm A	9	8	10	2
Firm C	9	8	7	-1	Firm B	9	8	7	-1
					Firm C	9	8	8	0
Total									
Сар	27	24	24	0	Total Cap	27	24	25	1
		npliance unde Cap. No penal	Above the Cap. penalty						

Introduce Pricing for Allowances Under the Cap Primary Market (Government Revenue)



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LRO

C&I Revenue For the purpose of Transportation

25.00 **Removing All other Caps and Leaving Gasoline and Diesel** 20.00 **Penalty Region** general price impact 15.00 MMT allowances sold at **Primary Market** 10.00 **Government Revenue Transportation (HWY) Revenue** 5.00 2021 2022 2023 2024 2025 2026 2028 2032 2027 2029 2030 2031

Gasoline



Reductions by Cap

Emissions allowed under the Cap

TRANSPORTATION REVENUE FROM SELLING C&I ALLOWANCES

- Allowance sold under the Cap by government are assumed to be Highway Fund Revenue
- Revenues from Penalties (above the Cap) are not included
- How would the Cost Responsibility operate for those revenues?
- Traditionally we have a plan to spend (projects of different types, Collection, Engineering, Administration, and other functions)
- We **allocate** the costs of these functions to vehicle classes
- Approximately 2/3 allocated to light vehicles and 1/3 to Heavy
- How much would **each vehicle class** be paying in taxes and fees
- HCAS re-estimates every tow years the more refined costs and revenue (64,36 in 2017)
- An equity ratio (rev/cost) is determined (underpay and overpay)
- Adjust tax rates accordingly Feb/25/2019

NEED TO ANSWER SOME QUESTIONS

- How much Transportation Revenue is to be generated?
- What is the revenue to be used for?
- What will be the impact on Heavy/Light balance?
- Costs and revenue proportions and ratios
- Can we find out what revenue is coming from which class?
 - Diesel from Heavy vehicle use (NOT ALL DIESEL IS USED ON THE ROAD)
 - Gasoline/use-fuel from Light
- NEED data and methods to treat it?
- We asked our consultants to look at some scenarios?
- answer some of these Questions