

Office of GHG Programs: Climate Protection Program Update

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Item G

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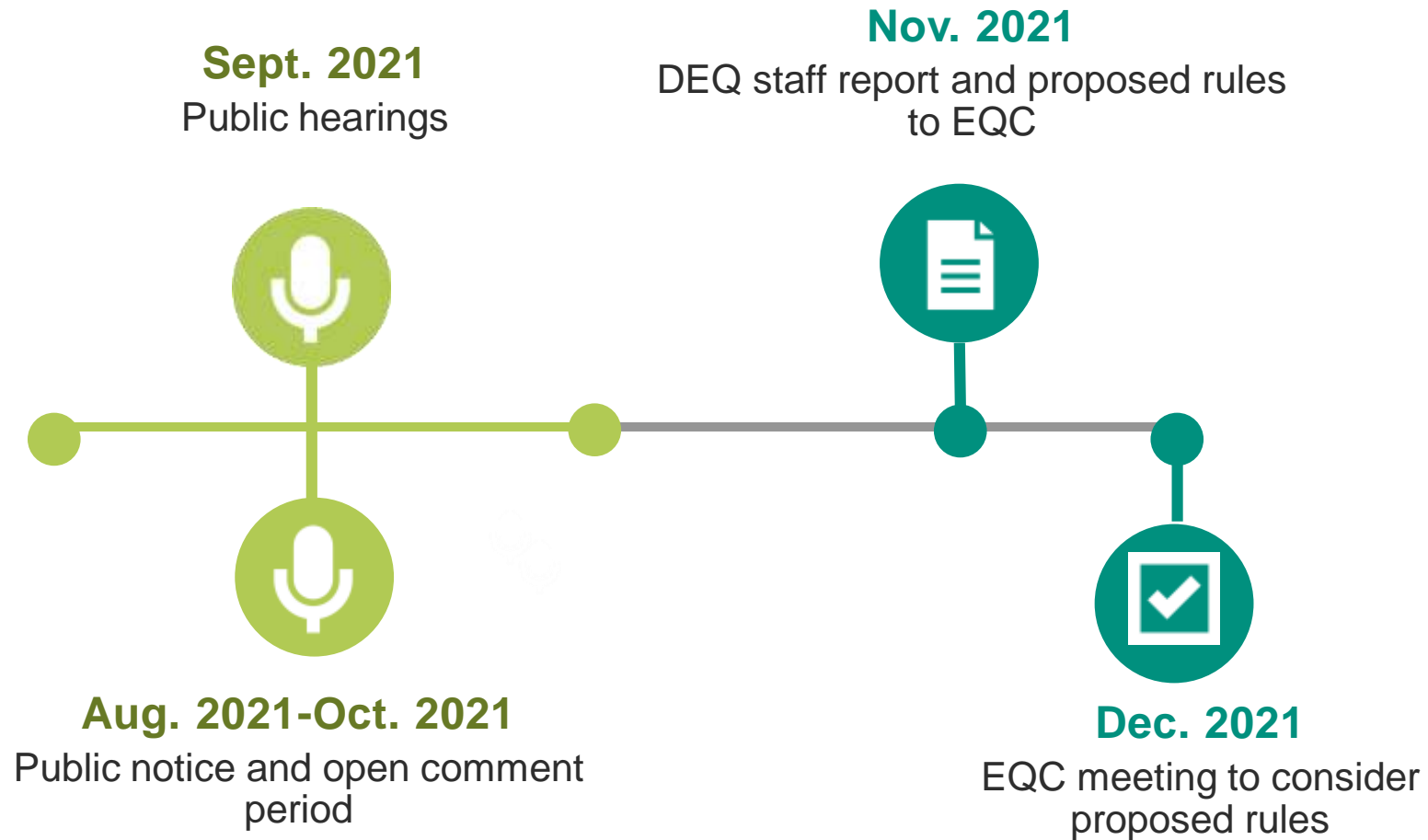
Oregon Environmental Quality Commission meeting

Climate Protection Program (CPP)

- Establish limits on GHG emissions from fossil fuels in Oregon
 - Enforceable
 - Declining
- Reduces emissions from:
 - Fuel used for transportation
 - Largest source of emissions
 - Other fossil fuel including
 - Natural gas
 - Diesel in non-road uses
 - Propane
- Final Rulemaking Advisory Committee
 - July 8th



CPP Rulemaking Timeline: Next Steps



Some Key Program Issues Discussed with RAC

- Applicability, threshold for inclusion-Determining the regulated entities
- Emissions cap and reductions-Overall limit on GHG emissions
- Cost containment and equity measures-Community climate investments
- Stationary sources emissions



Potentially Regulated Entities: Fuel Suppliers

- Natural gas utilities: 3 gas utilities supply nearly all end users in Oregon
- Suppliers of other fossil fuels [gasoline, diesel, kerosene, propane]
 - DEQ previously discussed a 200,000 MT CO₂e threshold with RAC
 - Most recently discussed a declining threshold over time
 - 200,000 declining to 25,000
 - Ultimately cover about 99% of all non-natural gas fossil fuels (2019 data)

Year	Threshold	Share of Fuel Sector Emissions	Estimated Count of Suppliers
2022 through 2024	200,000 MT CO ₂ e	89%	9
2025 through 2027	100,000 MT CO ₂ e	94%	18
2028 through 2030	50,000 MT CO ₂ e	97%	25
2031 and each year thereafter	25,000 MT CO ₂ e	99%	37

Emissions Cap: Base Cap Considerations

What is the base cap?

- Starting emissions cap for the first year of the CPP program (2022)

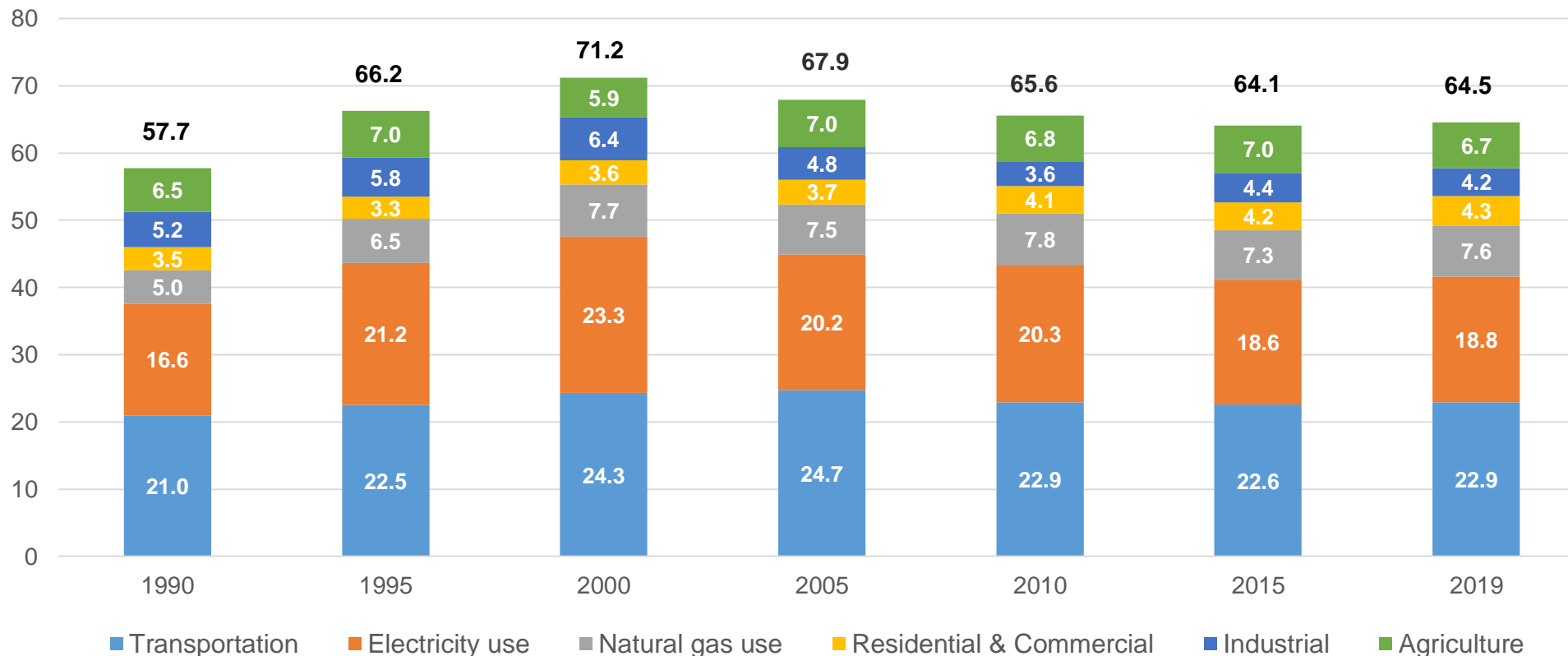
How to compute base cap?

- GHG emission reduction goals in Oregon have used 1990 baseline
 - No detailed data by entity as far back as 1990, only broad sectoral estimates
- DEQ starts reported data by entity in 2010
- Potential advantages of using reported data to determine base cap
 - Data is more granular than broader sectoral estimates used previously
 - Data allow for more precision in calculation of emissions that would have been covered in a baseline given proposed covered entities, thresholds, etc.

Statewide GHG Emissions Inventory

Oregon Greenhouse Gas Emissions

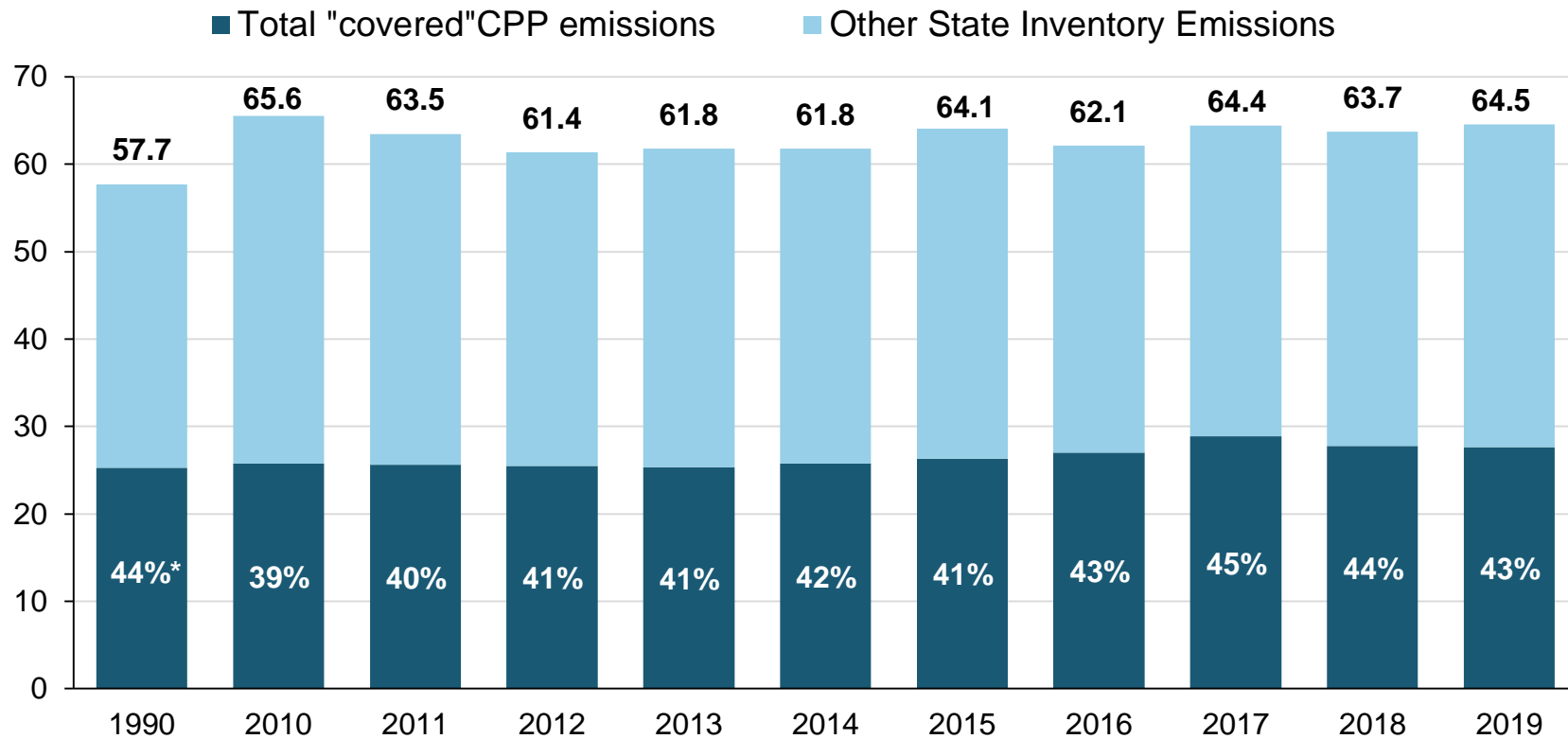
Million MTCO₂e



Statewide sector-based inventory directly informed by reported data and includes additional estimates to account for emissions and sectors beyond those that directly report to DEQ

CPP Emissions vs. Statewide Emissions

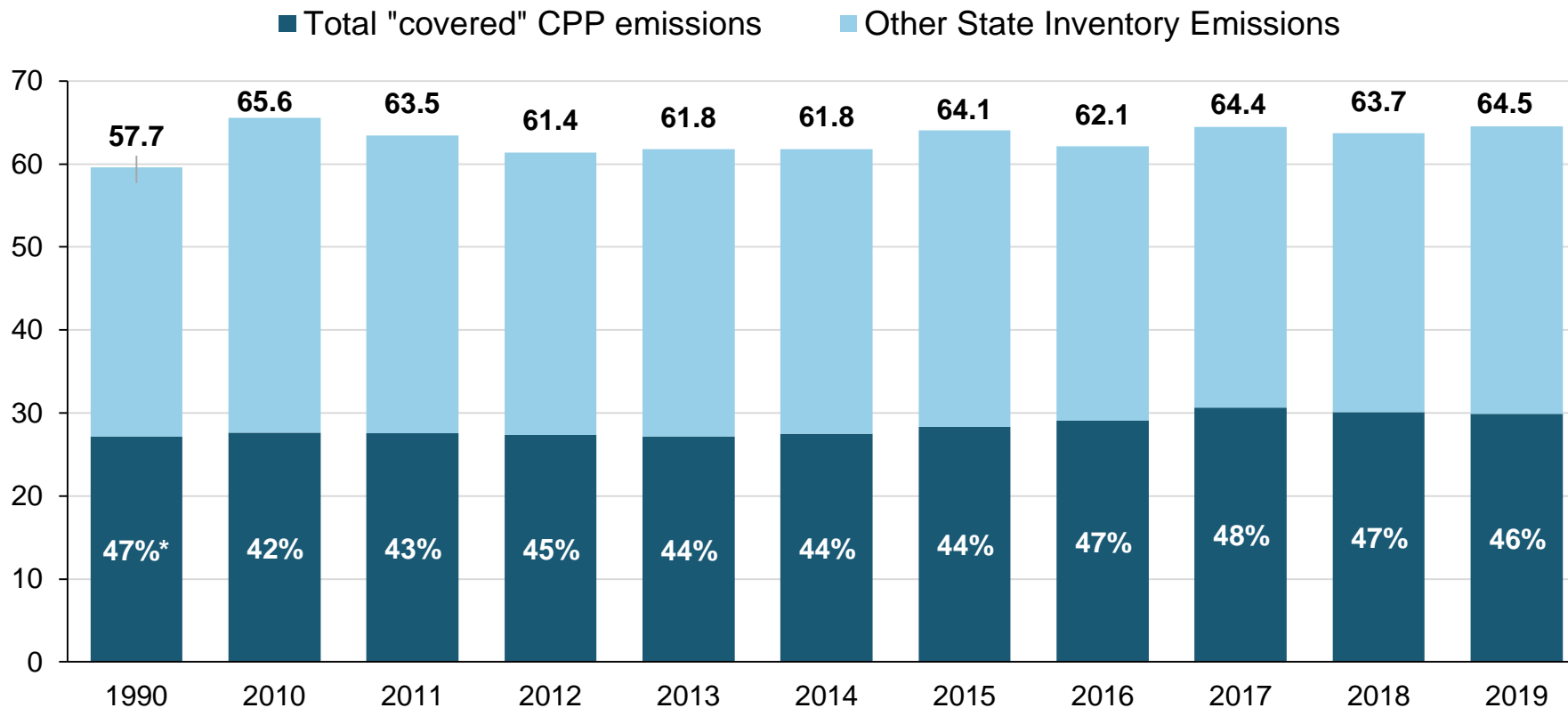
- State inventory total compared to CPP “covered” emissions from GHG Reporting Program
- Assumes natural gas utilities and fuel suppliers \geq 200,000 MTCO₂e threshold



* 1990 % of covered emissions estimated by using average covered CPP emissions share of 2017-2019 inventory

CPP Emissions vs. Statewide Emissions

- State inventory total compared to CPP “covered” emissions from GHG Reporting Program
- Assumes natural gas utilities and fuel suppliers \geq 25,000 MTCO₂e threshold



* 1990 % of covered emissions estimated by using average covered CPP emissions share of 2017-2019 inventory

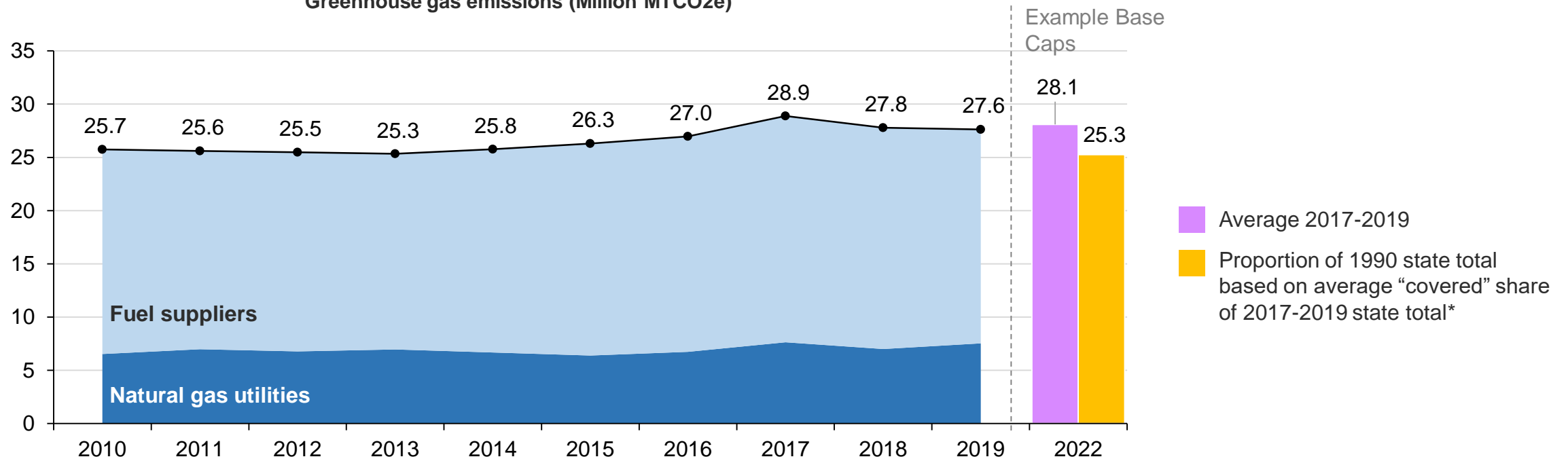
CPP Emissions Cap and Reduction Trajectory

- Base (2022) Cap
 - Three-year average to mitigate annual variation (2017-2019)
 - Average 2017- 2019 covered emissions reported to DEQ by natural gas utilities and fuel suppliers \geq 200,000 MT
- Cap updated for expanded emissions scope as thresholds declines
 - Adjustment in years where threshold declines to cover wider scope of emissions and entities (2025, 2028, 2031)
- Cap Targets:
 - 45% reduction from base cap by 2035
 - 80% by 2050

Emissions Cap: Base Cap Estimates

- CPP assumes natural gas utilities and fuel suppliers \geq 200,000 MTCO₂e threshold

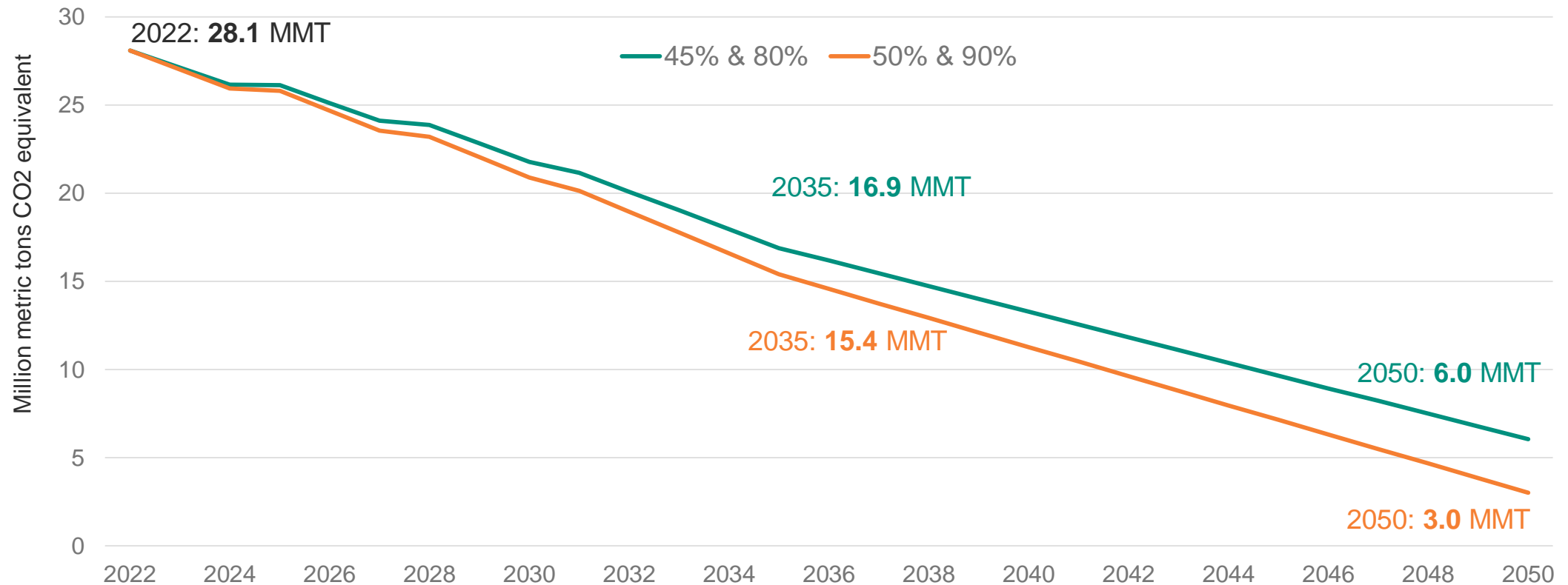
CPP “Covered” Emissions for GHG Reported Data
Greenhouse gas emissions (Million MTCO₂e)



* For the cap based on 1990 inventory data: total statewide emissions in 1990 were multiplied by the average “covered emissions” share of the inventory in 2017-2019.

Note: Historic emissions for fuel suppliers based on entities with regulated emissions above the threshold in that year, not accounting for summing emissions from companies that may be related.

CPP Emission Cap Declines



Community Climate Investments (CCIs): Overview

Covered fuel suppliers could invest in projects that reduce GHG emissions to earn CCI credits

- 1 CCI credit generally equivalent to 1 compliance instrument
- Only alternative compliance option for CPP (20% of compliance obligation)
- DEQ, with equity advisory committee, selects third parties to receive funds and implement projects
- DEQ sets the same price for each CCI credit
- DEQ distributes CCI credits



Community Climate Investments

- CCI Investments
 - Must reduce GHG emissions in Oregon
 - Prioritize projects in environmental justice and impacted communities
- CCI Third Party Entities
 - May implement a project itself or in partnership with others (subcontracting)
 - Must be a 501(c)(3) nonprofit, but project partners don't need to be
 - Selected in consultation with an equity advisory committee
 - Prioritize membership from multiple regions of Oregon and multiple areas of expertise, interest, and lived experience

Community Climate Investments

- CCI Emission Reductions
 - Third party entities would propose a method to estimate emissions reductions (from GHGs and other air contaminants)
 - Methodology may be revised with DEQ approval
 - Report annually on the emissions reductions achieved
- Program review
 - Extensive stakeholder and advisory committee feedback on **importance of 1:1**
 - Report to the EQC on CCI every two years on
 - Total credits issued & overall GHG emissions reduced
 - Other pollutants reduced
 - How impacted communities are being invested in and providing input
 - Suggest potential changes to program operations or rules

How CPP Could Work: Stationary Sources

- Best Available Emissions Reduction (BAER) assessment
- Site-specific direct regulation; no compliance instruments
- Different industries and emission sources
- Approximately 13 sources responsible for less than 1.7 million emissions

Potentially applied to:

- Industrial processes
 - Cement
 - Electronics
 - Steel
 - Plastics
- Solid fossil fuels combustion
- Natural gas from interstate pipelines

**Best technology,
operations,
practices to reduce
GHG emissions**



How CPP Could Work: Stationary Sources

- Facilities
 - Provide information to DEQ and offer assessments of available technologies and practices to reduce emissions
- DEQ
 - Review the provided information in assessment and any additional information
 - Consult independently industry sectoral experts
 - Consult with local community members
 - Consider potential relationships between GHG emission reductions and state regulations on other air pollutants
 - Determine requirements
 - Notify sources of what they need to do and by when

Policy Discussions: Stationary Sources

- How will DEQ balance strategies that maximize emission reductions with economic feasibility and commercial availability?
- How long will the BAER assessment and determination process take?
- What resources and information will DEQ have to make BAER determinations?
- How will DEQ consider overall emissions reductions from stationary sources?



Fiscal Impact Statement (FIS)

- Requirements:
 - Agency must provide notice of fiscal impact for proposed rules
 - If significant small business impacts, consider mitigation
- Required elements:
 - Analysis of any significant fiscal impacts on
 - Large businesses subject to the proposed rule
 - Small businesses subject to the proposed rule
 - State and federal agencies
 - Local government
 - Public
 - Possible mitigation measures for impacts on small businesses
 - Housing cost

Fiscal Impact Statement (FIS)

- Asked RAC to help us consider the fiscal and economic impact of the proposed CPP
 - Is there a fiscal impact for covered entities and if so, what is the extent of that impact?
 - Is there a potential significant adverse impact on covered entities that are small businesses, and if so, how could we mitigate that impact?
 - What about indirect impacts to the public (businesses and consumers?)
- Input will inform revisions to initial fiscal impact statement

Initial Fiscal Impact Statement

Covered Entities-Direct Impacts

- Impacts from the proposed cap program to covered fuel suppliers
- Impacts from the BAER approach to covered stationary sources
- Impacts from new permitting, reporting, and recordkeeping requirements

Public-Indirect impact

- Consumers of fuels for energy and transportation and consumers of goods
- Job loss or job creation
- Improvements to public health

Initial FIS: Covered Entities

- Businesses that may be directly affected
 - 52 large businesses
 - 4 small businesses
 - Small businesses defined as having 50 or fewer employees

Covered Sector	Threshold	Count of Small Businesses
Covered fuel suppliers supplying liquid fuels or propane (non-natural gas fuel suppliers)	Greater than or equal to 200,000 MT CO ₂ e (covered beginning 2022)	0
	Greater than or equal to 100,000 MT CO ₂ e and less than 200,000 MT CO ₂ e (covered beginning 2025)	2
	Greater than or equal to 50,000 MT CO ₂ e and less than 100,000 MT CO ₂ e (covered beginning 2028)	1
	Greater than or equal to 25,000 MT CO ₂ e and less than 50,000 MT CO ₂ e (covered beginning 2031)	1
Covered fuel suppliers that are natural gas utilities	N/A (covered beginning 2022)	0
Covered stationary sources (air permit holders)	Greater than or equal to 25,000 MT CO ₂ e (covered beginning 2022)	0

Initial FIS: Compliance for Covered Fuel Suppliers

- DEQ will distribute compliance instruments at no cost
 - Not paying price for all emissions
 - Cost is for emissions that must be reduced to level allowed by DEQ-distributed instruments
- Several compliance options
 - Reduce emissions
 - Leverage multi-year compliance periods and banking
 - Buy/sell compliance instruments between suppliers
 - Fund CCIs and use CCI credits

Initial FIS: Compliance for Covered Fuel Suppliers

- High degree of uncertainty and variability in costs
 - Costs can vary by entity, compliance option, and over time
 - Long-term program in which technologies, costs and availability *will* change
- Initial fiscal provides examples of potential costs for different compliance options as cap declines in the future

Initial FIS: Compliance for Covered Stationary Sources

- BAER assessment, implementation plan, and five year review reports
 - Costs of available in-house professional and technical resources
 - Costs of any needed third-party consultants
 - Assessment cost could be either or both
- Costs to compile and submit implementation plans and review reports
- Costs can vary by complexity of business or industry
- Emissions reductions

Initial FIS: Negative Impact to the Public



- Retail price of fuels and goods could increase if covered entities or indirectly impacted commercial businesses pass costs on to consumers
 - If alternative fuels/clean technologies that reduce emissions are less cost-effective than the fuels/existing operations they would replace, then the price of fuels or goods for consumers could increase
 - If a covered fuel supplier acquires compliance instruments beyond those distributed freely by DEQ or contributes funds to receive CCI credits, then the price for consumers could increase



- Potential job loss if covered entities were to curtail production

Initial FIS: Positive Impact to the Public



- Retail price of fuels and goods could decrease if covered entities or indirectly impacted commercial businesses pass savings on to consumers
 - Example: fuel suppliers import higher blends of biofuels that receive clean fuels credits that thereby lower total cost/price of fuels supplied



- Public welfare benefits from climate action
 - Monetized health benefits up to \$2.3 billion
 - ICF modeling (2022-2050)
 - Reduce statewide adverse health impacts due to changes in criteria pollutant emissions
 - May be conservative estimate due to modeling limitations

Initial FIS: Positive Impact to the Public



- Creation of new green jobs
 - Implementation of projects funded by CCIs
 - Energy transition



- Oregon community benefits from CCIs
 - Cost savings for communities disproportionately burdened by the effects of climate change, air contamination, and costs, namely communities that are disproportionately Black, Indigenous, and communities of color, as well as low-income and rural communities



- Overall small but positive trends to economy for gross state product, jobs, and personal income
 - ICF modeling of program options to reduce greenhouse gas emission