Advanced Clean Cars II Proposed Rule
Public Stakeholder Meeting

June 29, 2022
Background

- Vehicles contribute air quality pollutant emissions – particulate matter, CO, NOx, and greenhouse gases

2019 GHG Emissions by Source

- Transportation: 36%
- Electricity Use: 29%
- Natural Combustion: 12%
- Agriculture: 10%
- Residential & Commercial: 7%
- Industrial: 6%
- Total: 65 Million MTCO₂eq
Oregon’s Strategy to Address GHG Emissions from Transportation

Governor’s Executive Order 20-04
Legal authority to adopt vehicle emission standards

- Section 177 of the Clean Air Act allows California to adopt their own motor vehicle emission standards
- States can adopt California emission standards, but must do so identically
- Provide two years’ advance notice before the start of the model year
- Oregon has adopted California’s emission vehicle rules since 2005
  - Emission standards in place through the 2025 model year
Proposed Advanced Clean Cars (ACC) II Rule

• California’s ACC II Rule
  – Continuation of LEV/ZEV rules for 2026-2035 model year
  – 100% new vehicles (MY 2035) must be ZEV
  – Compliance achieved through sales of battery electric and plug in hybrid electric vehicles

<table>
<thead>
<tr>
<th>Model Year</th>
<th>ZEV Percentage Requirement</th>
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<tbody>
<tr>
<td>2026</td>
<td>35%</td>
</tr>
<tr>
<td>2027</td>
<td>43%</td>
</tr>
<tr>
<td>2028</td>
<td>51%</td>
</tr>
<tr>
<td>2029</td>
<td>59%</td>
</tr>
<tr>
<td>2030</td>
<td>68%</td>
</tr>
<tr>
<td>2031</td>
<td>76%</td>
</tr>
<tr>
<td>2032</td>
<td>82%</td>
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<tr>
<td>2033</td>
<td>88%</td>
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<tr>
<td>2034</td>
<td>94%</td>
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<tr>
<td>2035</td>
<td>100%</td>
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Anticipated benefits of the rule

- Estimated emissions benefits

<table>
<thead>
<tr>
<th></th>
<th>NO\textsubscript{x}</th>
<th>PM\textsubscript{2.5}</th>
<th>WTW CO\textsubscript{2}e</th>
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</thead>
<tbody>
<tr>
<td>By 2030</td>
<td>922 US tons</td>
<td>30 US tons</td>
<td>3.6 million metric tons</td>
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<tr>
<td>By 2035</td>
<td>3,693 US tons</td>
<td>149 US tons</td>
<td>19.9 million metric tons</td>
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<tr>
<td>By 2040</td>
<td>7,695 US tons</td>
<td>372 US tons</td>
<td>54.1 million metric tons</td>
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- Estimated health benefits would result in $8.7 million in savings

Benefits calculations conducted by Sonoma Technology Inc (STI), with technical input on data and methods from the International Council on Clean Transportation (ICCT) and NESCAUM
EV Market Availability

Volvo plans to go fully electric by 2030 and only sell cars online

Stellantis Goes From Zero to Many BEVs With Ambitious Electrification Plans

GM can ‘absolutely’ catch Tesla in EV sales by 2025, says CEO Mary Barra

Nissan targets 40% of U.S. sales to be electric by 2030

Ford ups EV investments, targets 40% electric car sales by 2030 under latest turnaround plan

Honda Targets 100% EV Sales in North America by 2040, Makes New Commitments to Advances in Environmental and Safety Technology

Hyundai raises global EV sales target to 1.7mn in 2026, says CEO

VW expects EVs to represent half of its vehicle sales by 2030
Cost parity for electric vehicles

Slide: CARB
EV Sales in Oregon

Actual ZEV Sales
Projected ZEV Sales
Current ZEV Sales Requirement
ACC II minimum ZEV sales requirement

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>3.4</td>
<td>3.9</td>
<td>6.5</td>
<td>7.8</td>
<td>9.9</td>
<td>12.6</td>
<td>16.1</td>
<td>20.7</td>
<td>25.8</td>
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</tbody>
</table>

Legend:
- Actual ZEV Sales
- Projected ZEV Sales
- Current ZEV Sales Requirement
- ACC II minimum ZEV sales requirement

Graph showing EV sales from 2018 to 2026 with different indicators for actual, projected, current requirement, and ACC II minimum requirement.
Achieving the standard - compliance flexibilities

• Recognizing some manufacturers may need additional time to meet the proposed requirements and some states may not have the robust market development, the rule includes compliance flexibilities
  – Historical Credits
    • Allow auto manufacturers to use banked credits already earned
  – Pooled Credits
    • Auto manufacturers can “pool” across states
  – Early Action Credits
    • Earn values for placing EVs in states prior to the 2026 requirements
Compliance flexibilities - Environmental Justice values

• Provide compliance values to manufacturers who help increase affordable access to ZEV vehicles for priority communities
  – Discounted EVs in community-based clean mobility programs
  – Ensuring Used EVs available to participating dealerships
  – Lower priced EVs
Additional rule requirements

- EVs must have a minimum electric range
  - BEVs – 150 miles
  - PHEVs – 50 miles
- Durability – 80% of certified range value for 10 yr/150,000 mi
- Warranties – for parts and battery state of health (maintain 70-80% of battery range for life of vehicle)
- Charging cord capability (Level 1 and 2 capable)
- Increased charger size capability (to allow for faster charging)
- Battery labeling
  - Address battery recycling
ACC II - Low Emission Vehicle rule changes

• Gasoline vehicles will continue to be part of the fleet beyond 2035
• Rule changes ensure 2026 – 2035 MY vehicles are as clean as possible
Next Steps

- Public stakeholder meetings – June & July 2022
- Advisory committee meetings – August & September 2022
- Public comment - September 2022
- EQC Action – November or December 2022
Supporting the transition to EVs – Incentives

Oregon Clean Vehicle Rebate Program

- Rebate program to encourage Oregon residents to purchase or lease electric vehicles
  - Up to $2,500 for purchase or lease of new EV
  - $5,000 for low and moderate income households for used EV
  - Up to $7,500 for low- and moderate-income households for new EV
Supporting the transition to EVs - Charging infrastructure

- NEVI funding
  - $100 million to support public charging along alternative fuel corridors (ODOT)
- ODOT’s Transportation Electrification Infrastructure Needs Assessment (TEINA)
- Utility rebates to support home and business charging installations
- Building code requirements for new buildings to have EV charging capability