



Proposed Zero-Emission Powertrain Certification Regulation (ZEP Cert)

June 27, 2019

ZEP Cert Goals

- Promote development of effective and reliable HD electric and fuel-cell vehicles
- Increase consumer confidence in HD zero-emission technology
- Protect consumers purchasing vehicles as part of future technology-forcing zero-emission measures
- Protect California's incentive investments in zero-emission technology

California's Heavy-Duty Zero-Emission Measures

- First Rulemaking: Innovative Clean Transit (2018)
- “Companion” Rulemaking: Zero-Emission Airport Shuttle (2019)
- Planned Future Rulemakings
 - Advanced Clean Trucks (2019)
 - Heavy-Duty Low-NOx Standards (2020)
 - Drayage Trucks (2022)
 - Zero-Emission Cargo Handling Equipment (2022)

California's Investments in Heavy-Duty Zero-Emission Technology

Over \$500 million in funding provided, demand growing.

- Cap-and-Trade and AQIP
 - HVIP: \$220 million
 - Pilot and Demonstration Projects: \$248 million
- Prop 1B: \$47 million
- AB617: >20% toward on-road zero-emission technology in early funding; expecting significantly more

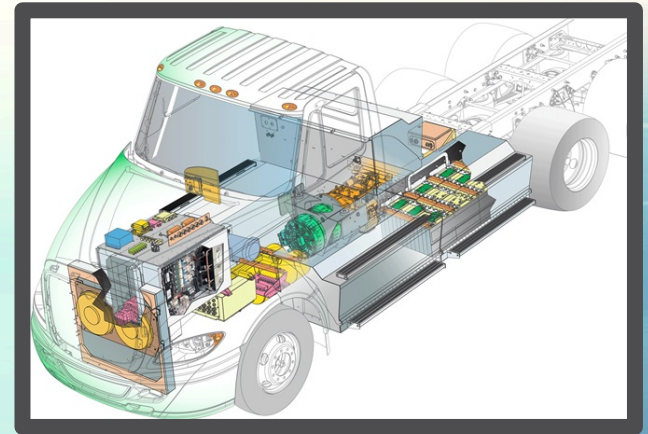
ZEP Cert Approach

- Codify expected best practices in California's HD certification program
- Applicability: MY2021+ On-Road HD electric and fuel-cell vehicles
- Balanced certification framework (optional process)
 - May be required by other zero-emission measures in the future (e.g., ZE Airport Shuttle Proposal)
 - May be included in funding programs targeting more-mature zero-emission applications
 - Manufacturers could use to “prove” their product

Scope of Zero-Emission Powertrain/Vehicle Certification

Separate Powertrain and Vehicle Certifications

- Powertrain: Electrified components
- Vehicle: Traditional mechanical components



Credit: TransPower

ZEPCert Powertrain Requirements

Objectives	Requirements
<i>Transparency and Consistency</i>	<ul style="list-style-type: none"> • Standardized battery capacity test • On-board battery usage information
<i>Product Support</i>	<ul style="list-style-type: none"> • Repairability: Third-party repair facility access to repair/diagnostic tools and information • Warranty and recall

ZEP Cert Vehicle Requirements



Objectives	Requirements
<i>Transparency and Consistency</i>	<ul style="list-style-type: none">• Required disclosures• On-board efficiency information
<i>Product Support</i>	<ul style="list-style-type: none">• Repairability: Third-party repair facility access to repair/diagnostic tools and information

ZEPCert Projected Costs

- Based on historical sales data from HVIP
- Includes costs for reporting, testing, labeling and preparation of certification applications
- Estimated Cost: \$720 per vehicle
- Estimated Cost to CA businesses from 2021 through 2025: ~\$250,000

Summary of 15-Day Changes

Continued to work with stakeholders to:

- Clarify intent of recall requirements
 - No capture rate
 - Tied to failures that render vehicles inoperable
- Streamline warranty reporting and recall provisions
- Add diagnostic communications flexibility
- Make other clarifying/editorial updates

Environmental Analysis

- Draft Environmental Analysis released for 45-Day public comment period
(January 4 – February 19, 2019)
- Written responses to comments and Final Environmental Analysis published June 24, 2019

Staff Recommendation

Approve Proposed Resolution 19-15, which includes the following components:

- Approve written responses to environmental comments
- Certify the Final Environmental Analysis
- Adopt the required CEQA Findings
- Adopt the proposed regulation