



Department of Environmental Quality

Low Carbon Fuel Advisory Committee
April 15, 2010

**Low Carbon Fuel Standard
Electricity as
Transportation Fuel**

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Department of Environmental Quality

Speakers

**Art James, Innovative Partnerships
Project Director, Oregon DOT**

**Maury Galbraith, Electric Rates and
Planning Manager, Oregon Public
Utility Commission**

**George Beard, Executive Leadership
Institute Sr. Instructor, Portland State
University**

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Electricity as Low Carbon Fuel

Purpose

DEQ is looking for the LCFS advisory committee's input on the potential use of electric vehicles in Oregon by 2022.

Comments will be used for developing compliance scenarios.

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Electricity as Low Carbon Fuel

Scope

Highway: Electric Vehicles and Plug-in Hybrid Electric Vehicles

Off-Highway: Truckstop electrification, forklifts, "shore power" to ships, ground equipment at airports, airplanes, etc.

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Electricity as Low Carbon Fuel

High efficiency of electric drive trains gives electricity significant potential as a low carbon fuel.

Battery development is proceeding rapidly.

Electricity is pollution-free at the vehicle

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Electricity as Low Carbon Fuel

Oregon's Low Emission Vehicle program requires "Zero Emission Vehicles" in future years.

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Electricity as Low Carbon Fuel

Minimum ZEVs required by DEQ rules

2012 to 2017: Plug-in Hybrids with 10+ mile all-electric range = 16,832* (total)

2018 to 2022: All-Electric Vehicles with 100+ mile range = 11,667* (total)

*LEV rule requirements vary according to vehicle capability. Vehicles with shorter all-electric range are required in greater numbers.

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Electricity as Low Carbon Fuel

Additional issues affecting electricity will be addressed in May:

How to assign carbon intensity

Opt-in parties

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Electricity as Low Carbon Fuel

How many EVs and Plug-in EVs can Oregon expect by 2022?

Low estimate: 5% of sales by 2022?

**High estimate: 20% of sales by 2022?
(approx. 5.5% of Oregon fleet)**

**DEQ requests the committee's
comments by Apr. 30, 2010**

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