Electrifying Transit: Why, Who and How

Public Transportation Advisory Committee
May 8, 2017
Alison Wiley, Christine West, Andrew O’Keefe
Overview

• Why electrify a fleet? What is gained?
• Who is already electrifying, and where?
• How do you do it? And fund it?
Electrification – Old and New
Why Zero Emission Buses (ZEB's)?

Reduced fuel costs

Reduced maintenance costs

Reduced GHG and other emissions
Savings on Fuel and Maintenance

Many fewer engine parts

$2.20/gallon diesel v. $1.01/elec-gallon

Savings est’d at $39k p.c. ZEB per year in one study
Reduced Emissions

Carbon Intensity of Oregon Transportation Fuels

Carbon Intensity (grams CO2e/MJ)
Who’s running more than ten ZEB’s?

- TARC – Louisville, KY
- IndyGo – Indianapolis
- Antelope Valley, CA
- Stanford University
- Foothill Transit, CA
Who's getting started in Oregon?
Where next?

Josephine Community Transit
Who else is looking at ZEB's?

- SAMTD
- SMART
- Sunset Empire
- City of Corvallis / OCWCOG
- COIC
How? ZEB's Cost More Up Front

• Diesel bus approx. $400k-$500k
• Electric bus approx. $650k-$770k
How

• Usual vehicle funding plus Battery Lease Option
• Levels the gap between initial purchase price (diesel v. ZEB)
How: LONO Grant

• Low emissions/no emissions
• FTA nationwide solicitation
• 15% match on buses
• 10% match on charging infrastructure
• ODOT submitting group proposal
• Application deadline June 26, 2017
How: Oregon Senate Bill 1547

- Pacific Power seeking partners in electrifying transportation
- To comply with SB 1547
How: ZEB Network Group

Antelope Valley Transit Auth

Stanford

Metro

We’ll Get You There

Foothill Transit

Going Good Places

Josephine Community Transit

TARC

LT
How: A ZEB Learning Community

- ZEBRA
- Zero Emissions Bus Resource Advocacy Group
- Starting involvement:
  - LTD
  - SMART
  - Sunset Empire Transit
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