MISSION CONNECTING OUR COMMUNITY.

VISION IN ALL THAT WE DO, WE ARE COMMITTED TO CREATING A MORE CONNECTED, SUSTAINABLE, AND EQUITABLE COMMUNITY.

VALUES RESPECT, INTEGRITY, INNOVATION, EQUITY, SAFETY, AND COLLABORATION.
AGENDA

GHG Inventory Results FY 19-21 & trends

Climate Action Policy Progress

Q&A?
GHG Impacts and Benefits from Transit

Net Greenhouse Gas Impacts of Transit
Emissions Produced – Emissions Displaced

Emissions Produced by Transit

Transit Operations
- Fleet vehicles energy use
- Buildings & stations energy
- Refrigerants for vehicle AC
- All other emissions sources
  - Business travel
  - Employee commute
  - Solid waste
  - Purchases

Graphic Adapted from *Quantifying Greenhouse Gas Emissions from Transit*, APTA, 2009.
GHG Impacts from Transit, FY 2021

77% reduction compared to FY 2018

KEY LESSONS:
- 77% drop in fleet emissions compared to FY18 due to switch to R-99, (11) electric buses, reduction in vehicle miles.
- Fleet remains largest source of owned emissions (78%).
KEY LESSONS:
• Fleet emissions fairly stable until FY 21.
• Upstream energy is fixed, based on fuels used for Fleet.
• Supply chain emissions vary based on capital construction projects, bus purchases.
GHG Impacts and Benefits from Transit

Net Greenhouse Gas Impacts of Transit
Emissions Produced – Emissions Displaced

Emissions Produced by Transit

- Transit Operations
  - Fleet vehicles energy use
  - Buildings & stations energy
  - Refrigerants for vehicle AC
  - All other emissions sources
    - Business travel
    - Employee commute
    - Solid waste
    - Purchases

Emissions Benefits of Transit

- Ridership Benefit
  - Reduced VMT from taking the bus instead of a private auto

- Land Use Benefit
  - Compact development around transit facilities reduces VMT for all
  - Shorter trips makes biking/walking more attractive

Graphic Adapted from Quantifying Greenhouse Gas Emissions from Transit, APTA, 2009.
GHG Benefits from Transit Ridership FY 16-21

Comparison of LTD Operational Emissions with Ridership GHG Benefits

KEY LESSONS:
• Transit is an important strategy to reduce community emissions.
• FY 21: benefits 3x impacts.
• Declining ridership reduces benefits.
GHG Benefits from Transit Ridership + Land Use

Comparison of Community Emissions with Transit-related GHG Benefits

KEY LESSON:
- Without transit, Eugene/Springfield emissions from passenger vehicles could be 17% larger than they are today.
Climate Action Policy, 2020

“LTD recognizes the urgency in addressing climate change and is committed to reducing community greenhouse gas emissions by taking steps to maximize public transit ridership and support low-carbon active transportation modes. LTD is also committed to reducing the greenhouse gas emissions and consumption of fossil fuels from its fleet of vehicles as quickly as possible in a financially and socially responsible manner. LTD is committed to eliminating the use of fossil fuels in its bus fleet by 2035 and will develop plans to achieve that goal.”
Climate Action Policy, 2020

**Goal 1:** 25 electric buses within 3 years

**Goal 2:**
- By 2035: 100% fleet turnover, phase out fossil fuels
- By 2030: 75% GHG reduction from “Fleet”

**Goal 3:**
- Research emerging technology and fuels
- Develop joint community GHG emission reduction goals with partner jurisdictions
- Review progress & goals annually
LTD is on track to not only meet, but exceed the Climate Action Policy and Fleet Procurement Goals passed by the Board of Directors.
## Progress Towards Climate Action Policy

<table>
<thead>
<tr>
<th>GOAL</th>
<th>ON TRACK?</th>
<th>NOTES</th>
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<tbody>
<tr>
<td><strong>CAP Goal 1:</strong> 25 BEB contracted by 2023</td>
<td>✓</td>
<td>On track to exceed this goal: 30 buses by FY2023</td>
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<tr>
<td><strong>SBP Interim Goal:</strong> Fleet 25% BEB by 2024</td>
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<td></td>
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<tr>
<td><strong>CAP Goal 2a:</strong> Eliminate fleet fossil fuels by 2035</td>
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<td>On track: 64% Renewable fleet fuel in FY2021 due to switch to R-99 in Sept 2020</td>
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<td><strong>SBP Interim Goal:</strong> 70% renewable fuel by 2024</td>
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<td><strong>CAP Goal 2b:</strong> 75% Fleet GHG reduction by 2030</td>
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<td>Achieved: 77% Fleet GHG reduction in FY2021 due to R-99 and (11) electric bus deployment</td>
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<td><strong>SBP Interim Goal:</strong> 70% GHG reduction by 2024</td>
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<tr>
<td><strong>CAP: Goal 3a:</strong> Deliberate exploration of fuels</td>
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<td>On track: Fleet Procurement Plan Phase 1 for bus and paratransit fleets complete</td>
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<tr>
<td><strong>SBP Tactic:</strong> Fleet Procurement Plan Project</td>
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<tr>
<td><strong>CAP Goal 3b:</strong> Joint community GHG reduction goals with partners</td>
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<td>On track: Goals in CoE CAP2.0 &amp; Lane County CAP</td>
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<td><strong>SBP Tactic:</strong> Update GHG inventory biannually</td>
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<td><strong>CAP Goal 3c:</strong> Review progress annually</td>
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- **GOAL**: Objectives for climate action policy.
- **ON TRACK?**: Indicators of progress toward achieving goals.
- **NOTES**: Additional details or notes on progress.
Goal 1: 25 BEBs by 2023

- Exceeding goal: 30 BEBs by 2023
- (11) BEBs in service since June 2021
- (19) BEBs purchased
Goal 2a: Phase out Fossil Fuel Use by 2035

Percent Renewable Fuel = 5%
FY 2018 Baseline

- Diesel: 83%
- Gasoline: 12%
- Biodiesel: 4%
- Ethanol: 1%

Percent Renewable Fuel = 64%
FY 2021

- Diesel: 23%
- Gasoline: 13%
- Biodiesel: 1%
- Ethanol: 1%

Percent Renewable Fuel = 62%

Renewable Diesel: 62%

Ethanol: 1%
Goal 2b: 75% Reduction in Fleet GHGs by 2030

Fleet Greenhouse Gas Emissions by Service Type

- Fixed Route Bus
- EmX
- Ridesource
- Rural Connections Service
- Non-Revenue Vehicles

Goal 2b: 75% Reduction in Fleet GHGs by 2030

77% reduction compared to FY2018
Q&A? Thank you!

Kelly Hoell
Sustainability Program Manager
541-682-6146
Kelly.hoell@ltd.org
APPENDIX OF ADDITIONAL RESULTS
LTD Vehicle Miles, Fixed Route FY 09-21

Annual LTD Vehicle Miles
FY 2009-2021, Fixed Route

EmX (RBDO)  Non-EmX Fixed Route (MBDO)
LTD Vehicle Miles, RideSource FY 09-21

Annual LTD Vehicle Miles
Fiscal Year 2009-2021, RideSource
LTD Vehicle Miles, Rural Connections FY 09-21

Annual LTD Vehicle Miles
Fiscal Year 2009-2021, Rural Connection Services
LTD Boardings, All Modes FY 09-21

Annual LTD Boardings
Fiscal Year 2009-2021, All Modes
LTD Boardings, Fixed Route FY 09-21

Annual LTD Boardings
Fiscal Year 2009-2021, Fixed Route

Boardings


EmX (RBDO)  Non-EmX Fixed Route (MBDO)
LTD Boardings, RideSource FY 09-21

Annual LTD Boardings
Fiscal Year 2009-2021, RideSource

- Boardings Range: 0 to 250,000
- RideSource (DRPT)
LTD Boardings, Rural Connections, FY 09-21

Annual LTD Boardings
Fiscal Year 2009-2021, Rural Connections Service

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Rural Connections Service (MBPT)
LTD Fleet GHG Emissions, All Modes FY 09-21

Annual LTD GHG Emissions from Fleet
FY 2009-2021, All Modes

Greenhouse Gas Emissions (MT CO₂e)

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LTD Fleet GHG Emissions, Fixed Route FY 09-21

Annual LTD GHG Emissions from Fleet
FY 2009-2021, Fixed Route

Greenhouse Gas Emissions (MT CO₂e)

- EmX
- Fixed Route Bus
LTD Fleet GHG Emissions, RideSource FY 09-21

Annual LTD GHG Emissions from Fleet
FY 2009-2021, RideSource

Greenhouse Gas Emissions (MT CO₂e)
LTD Fleet GHG Emissions, Rural Connections FY 09-21

Annual LTD GHG Emissions from Fleet
FY 2009-2021, Rural Connection Services

Greenhouse Gas Emissions (MT CO₂e)
LTD Fleet GHG Emissions, by Service FY 09-21

Annual LTD GHG Emissions from Fleet by Service Type

Greenhouse Gas Emissions (MT CO₂e)

- Fixed Route Bus
- EmX
- Ridesource
- Rural Connections Service
- Non-Revenue Vehicles
LTD Fleet Energy Use, by Service FY 09-21

Annual LTD Energy Use from Fleet (MMBTU) by Service Type

- Fixed Route Bus
- EmX
- Ridesource
- Rural Connections Service
- Non-Revenue Vehicles
LTD Fleet Energy Use, by Fuel Type FY 09-21

Annual LTD Energy Use from Fleet (MMBTU) by Fuel Type

- Diesel
- Gasoline
- Electricity
- Biodiesel
- Renewable Diesel
- Ethanol
Supply Chain Emissions Detail FY 12-21

Annual LTD Estimated Supply Chain GHG Emissions
by Purchasing Category, FY 2012-2021

Greenhouse Gas Emissions (MT CO2e)

- Construction
- Buses, Vehicles and Parts
- All Other Purchases
## LTD GHG Emissions Detail FY 09-21

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<th>Fleet Fuels MT CO₂e</th>
<th>Natural Gas MT CO₂e</th>
<th>Refrigerants &amp; Processes MT CO₂e</th>
<th>Electricity Upstream MT CO₂e</th>
<th>Business Travel MT CO₂e</th>
<th>Solid Waste MT CO₂e</th>
<th>Commute MT CO₂e</th>
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