

BATTERY-ELECTRIC BUSES

CLIMATE GOALS

TRANSIT AGENCY CHALLENGES

SOCIAL EQUITY

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CLIMATE GOALS AND POLICY ACTIONS

KING COUNTY (SEATTLE)

- Grow transit service through 2020 with no increase in GHG emissions
- Increase the use of alternative fuels (e.g. electricity, biofuels) in Metro's fleet by 10 percent by 2025
- Double transit ridership by 2040

Source: King County Strategic Climate Action Plan

CHICAGO

- Invest in transit improvements and boost Chicago's transit system ridership by 30 percent from 2008 levels by 2020
- Reduce citywide greenhouse gas emissions to levels equivalent to or greater than 26-28% reduction from 2005 levels by 2025

Sources: City of Chicago Climate Action Plan and Greenhouse Gas Inventory Report

IMPLEMENTATION AT TRANSIT AGENCIES

APRIL 2016

Motion 14633

King County Council requested to develop and transmit a feasibility report that identifies and analyzes strategies for and barriers to achieving a carbon-neutral or **zero-emission vehicle fleet.**

JANUARY 2017

Press Release

King County Executive Dow Constantine announced that King County Metro Transit will acquire **120 all-electric battery buses by 2020.** Metro will purchase up to 73 battery buses from Proterra. The first 20 are scheduled to go into service this year and 2019.

IMPLEMENTATION AT TRANSIT AGENCIES

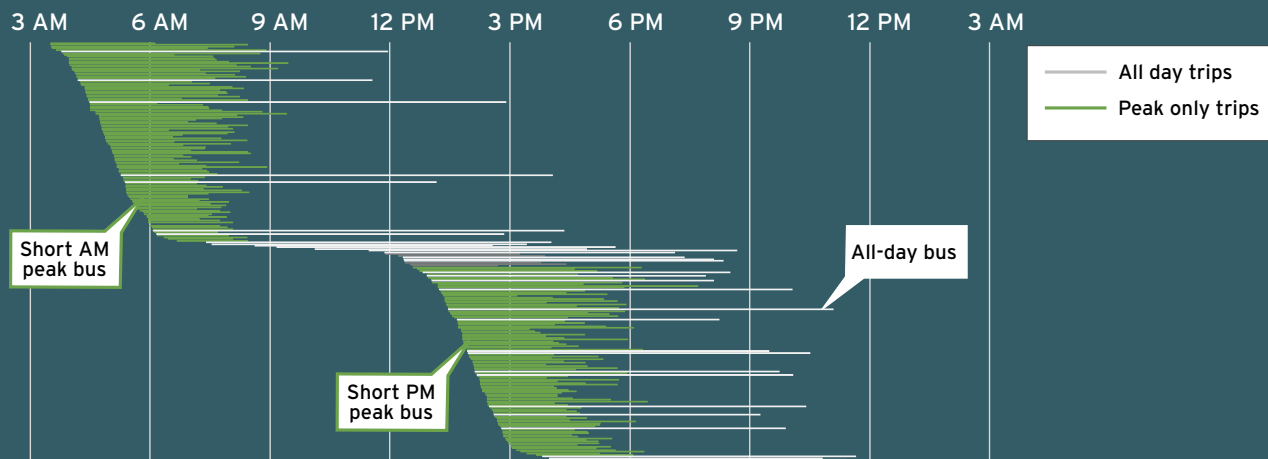
INFRASTRUCTURE: Charging station siting and power requirements

SCALABILITY: Choosing what is right for the transit agency and thinking about long-term universal charging needs

SERVICE QUALITY: Changes in quality of service and scheduling

COORDINATION: Communication between all departments and relationships with utility companies and jurisdictions

MAINTENANCE AND OPERATIONS: Input and support from operators and training needs



SOCIAL EQUITY IN BATTERY-ELECTRIC PLANING

- Low-income families and people of color are more likely to live in neighborhoods that have **high concentrations** of air pollution
- Providing public transit to **disadvantaged populations** is key to advancing equity
- Air pollution benefits of zero-emission technology could **advance social equity** by first serving communities most vulnerable to air pollution

EQUITY ANALYSIS

POOR AIR QUALITY

- Diesel emissions
- Proximity to traffic
- Sources with air operating permits
- Wood as primary heating fuel

EXISTING HEALTH CONDITIONS

- Cardiac hospitalizations
- COPD hospitalizations
- Asthma prevalence

SOCIAL FACTORS

- Minority
- Low income
- Population under 18
- Population over 64
- High school diploma
- Households with linguistic isolation

