



PNW Collaborative Accelerated Fleet Electrification: A Model for Equitable Emissions Reduction

Emily Pinckney

Director of Fleet Electrification

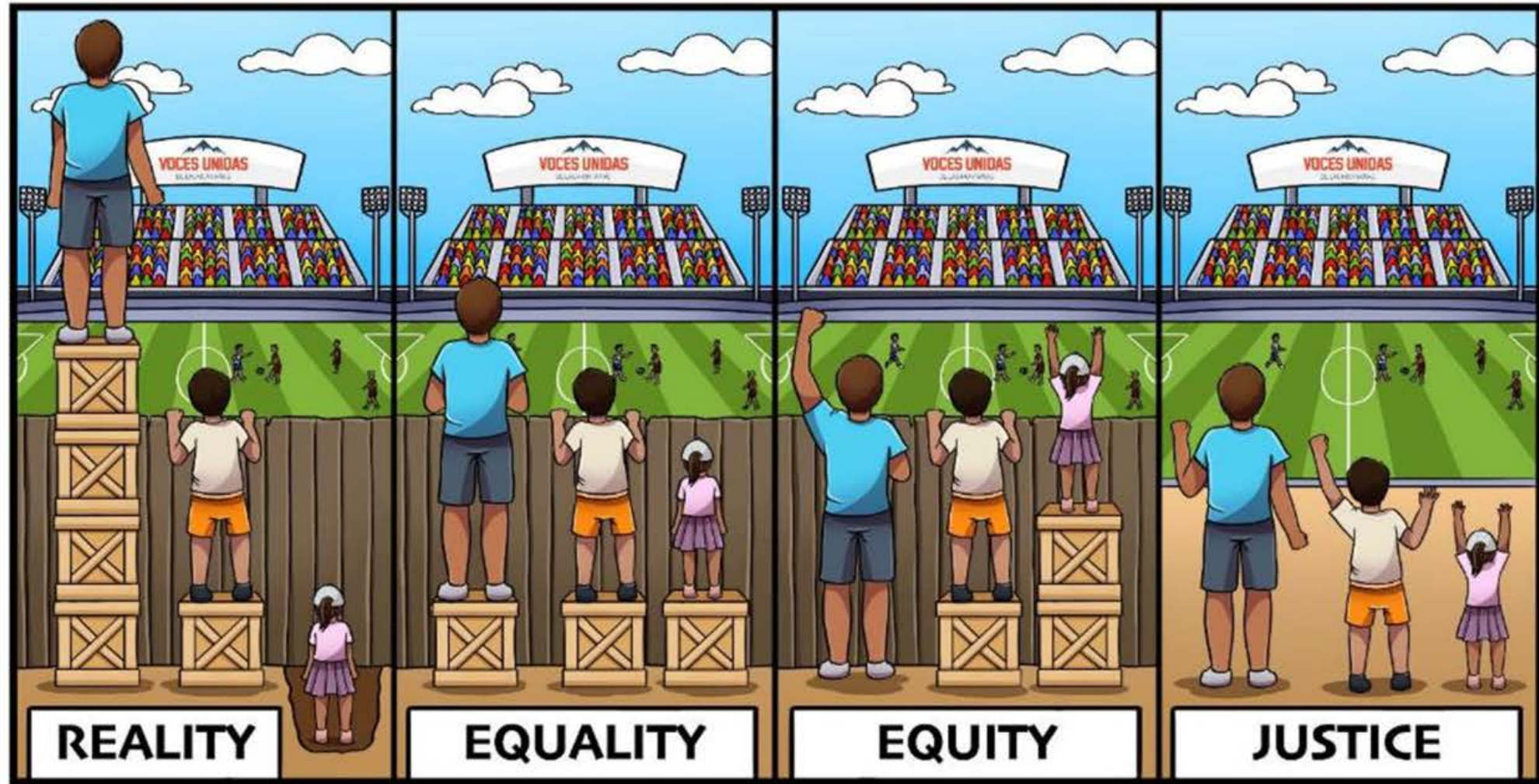
Who is Emily?

- Co-Chair, Seattle **Green New Deal** Oversight Board
- **Puget Sound Clean Air Agency**
- **Zero Emissions Truck Collab**
- **ZEV Co-op**
- Lifelong community servant
- Science + policy + people + planet
= **Environmental Justice**



Funding will help reduce climate pollution in nonprofit, affordable housing, and community buildings

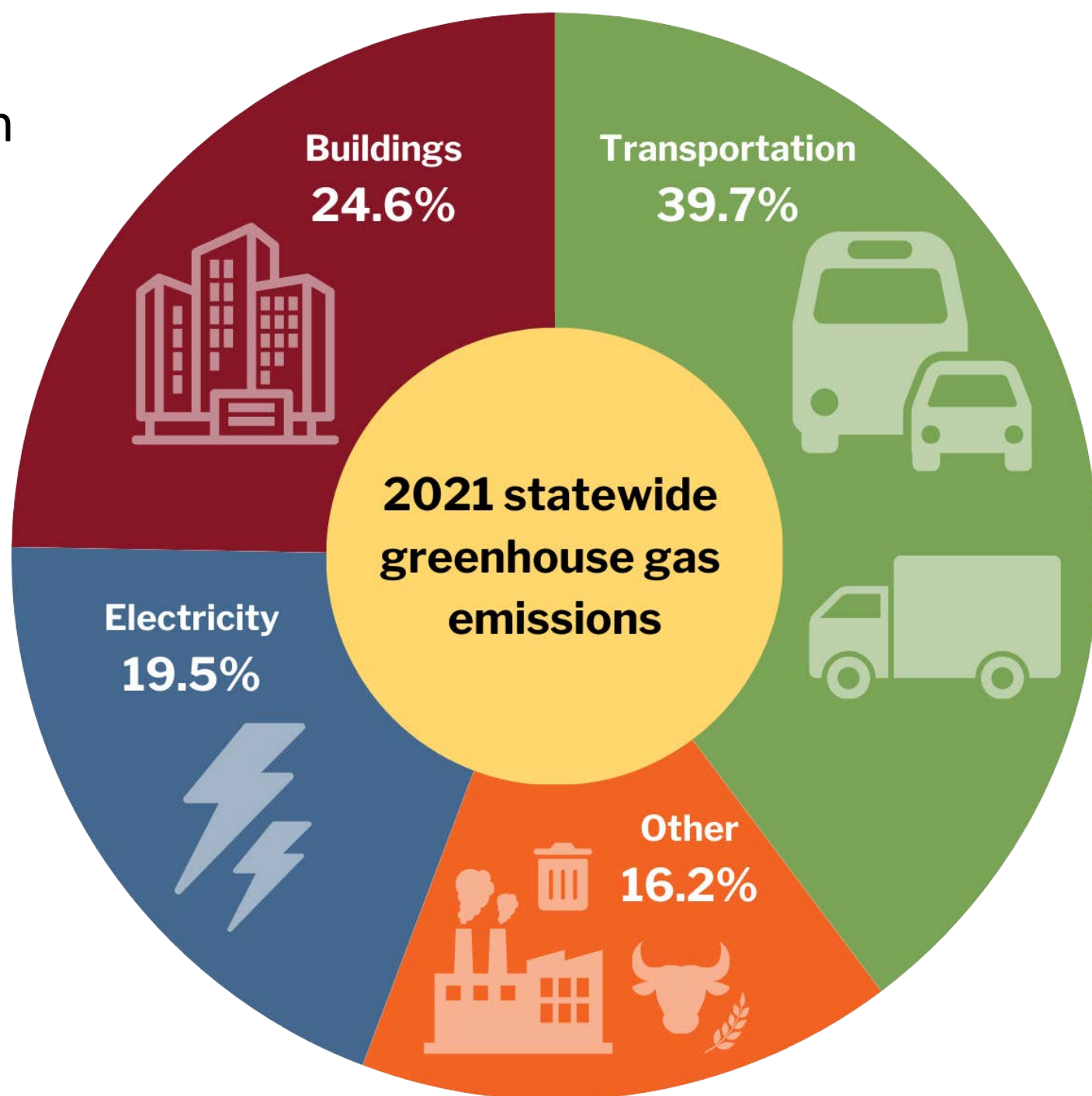


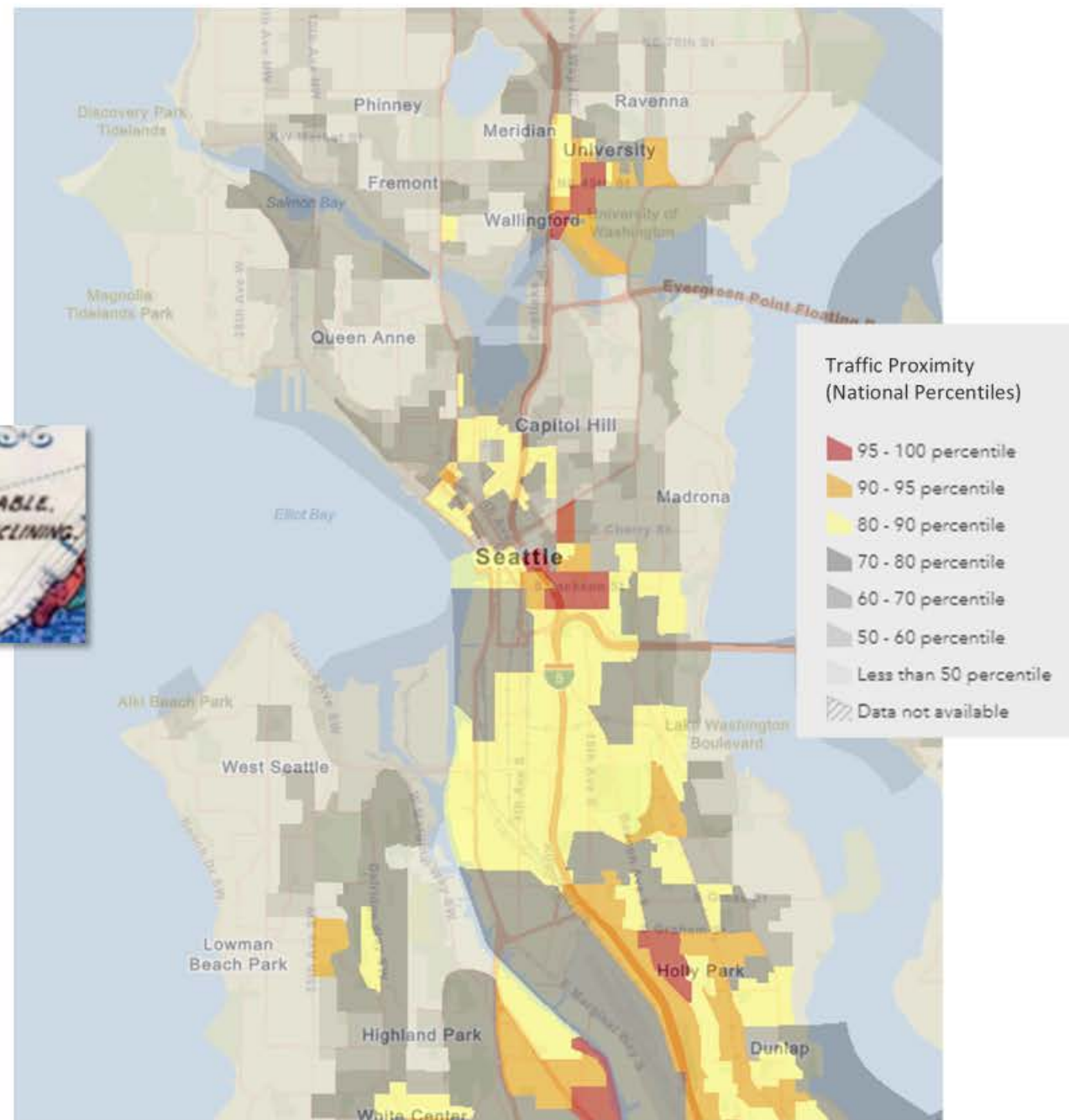
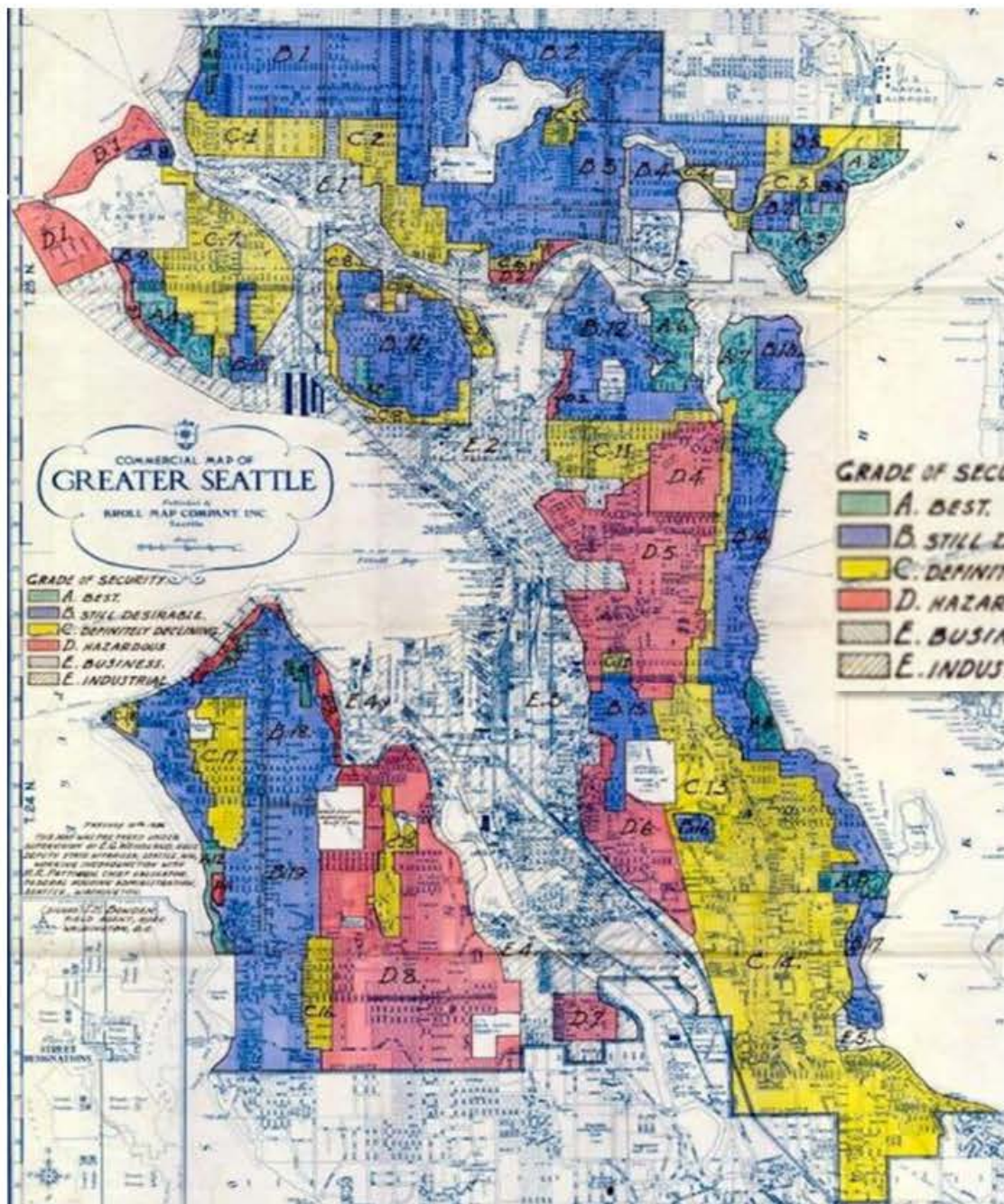


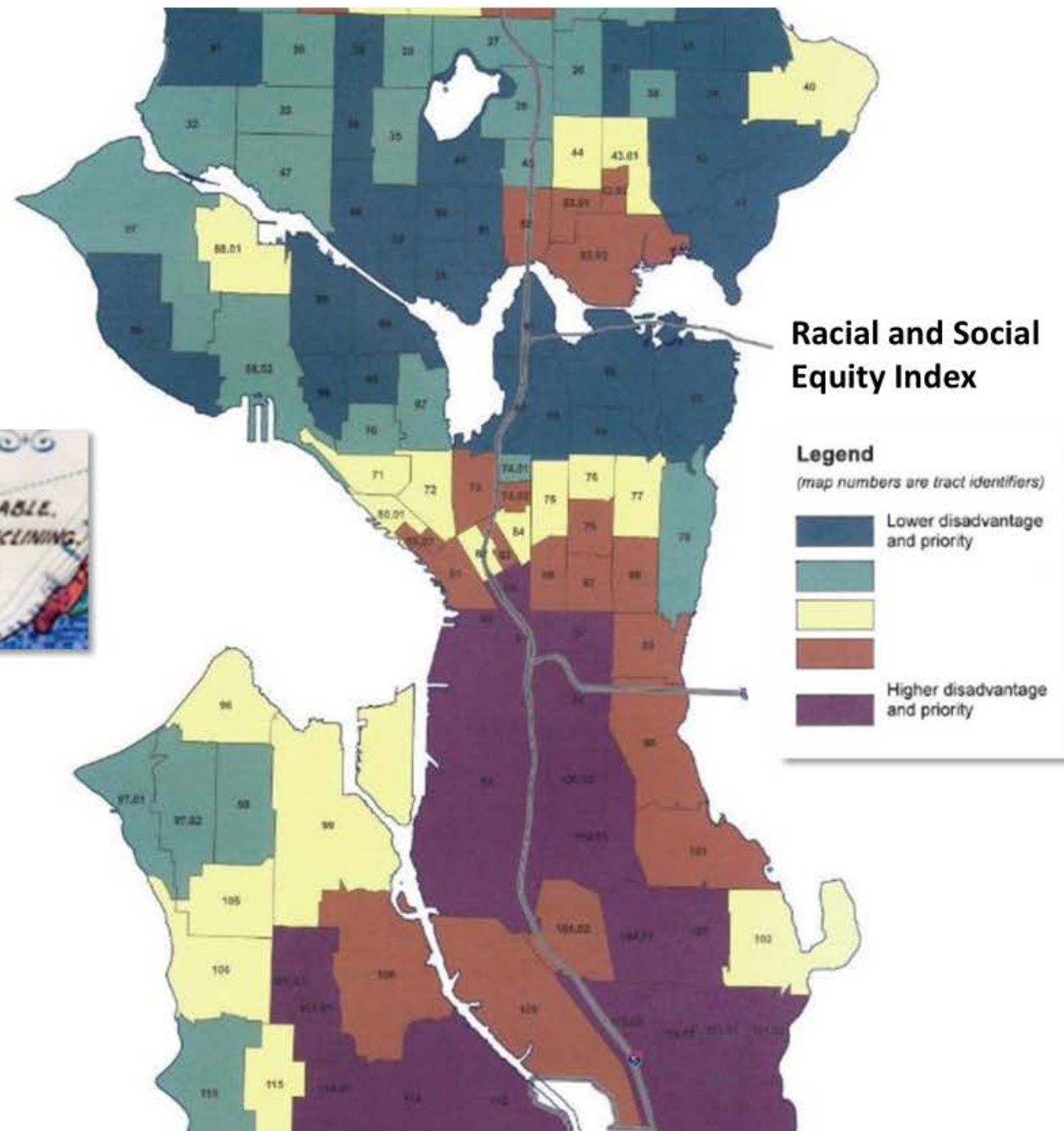
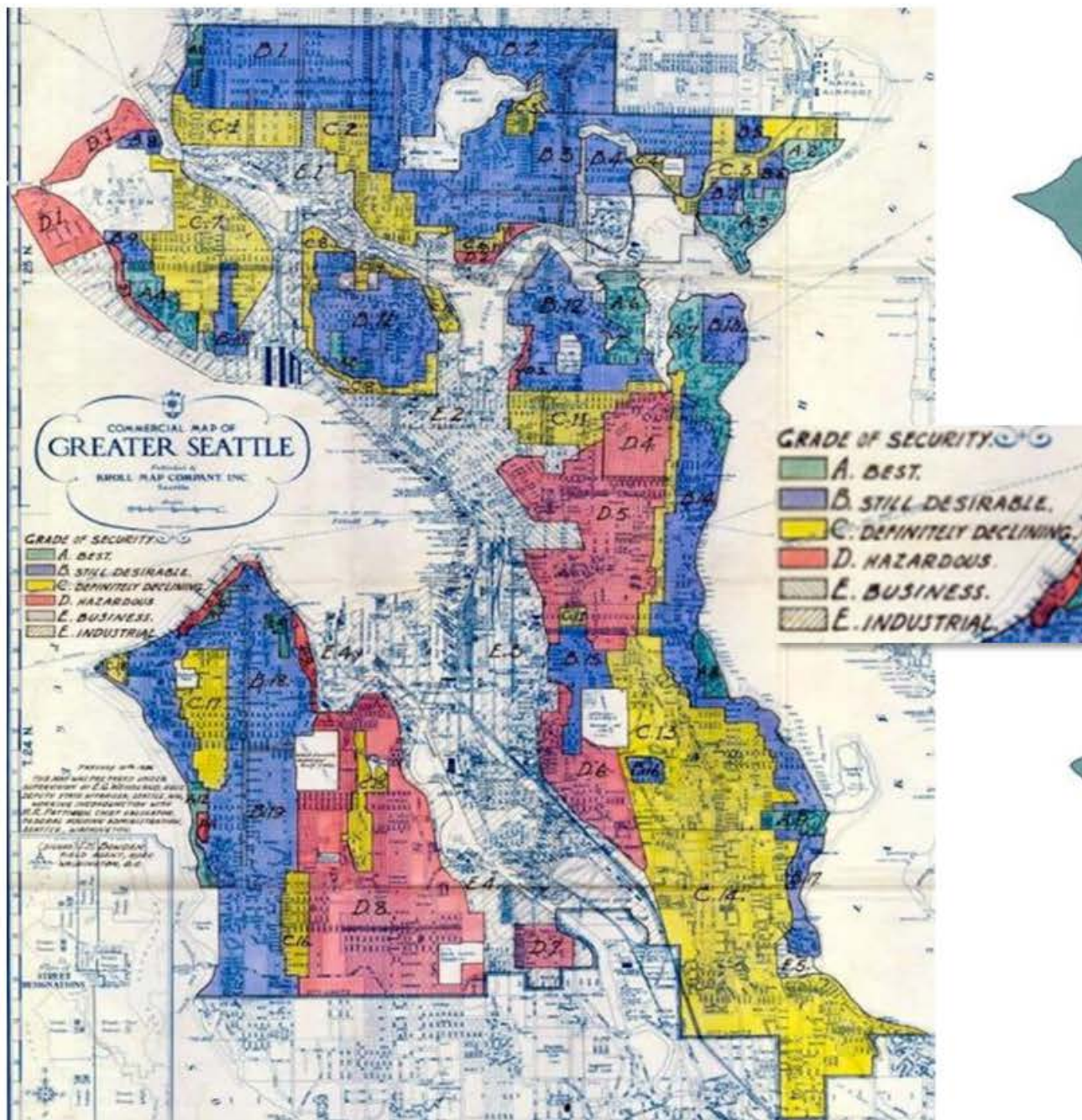
Equality and **Equity** are about providing tools and resources to respond to the effects of an inequity.

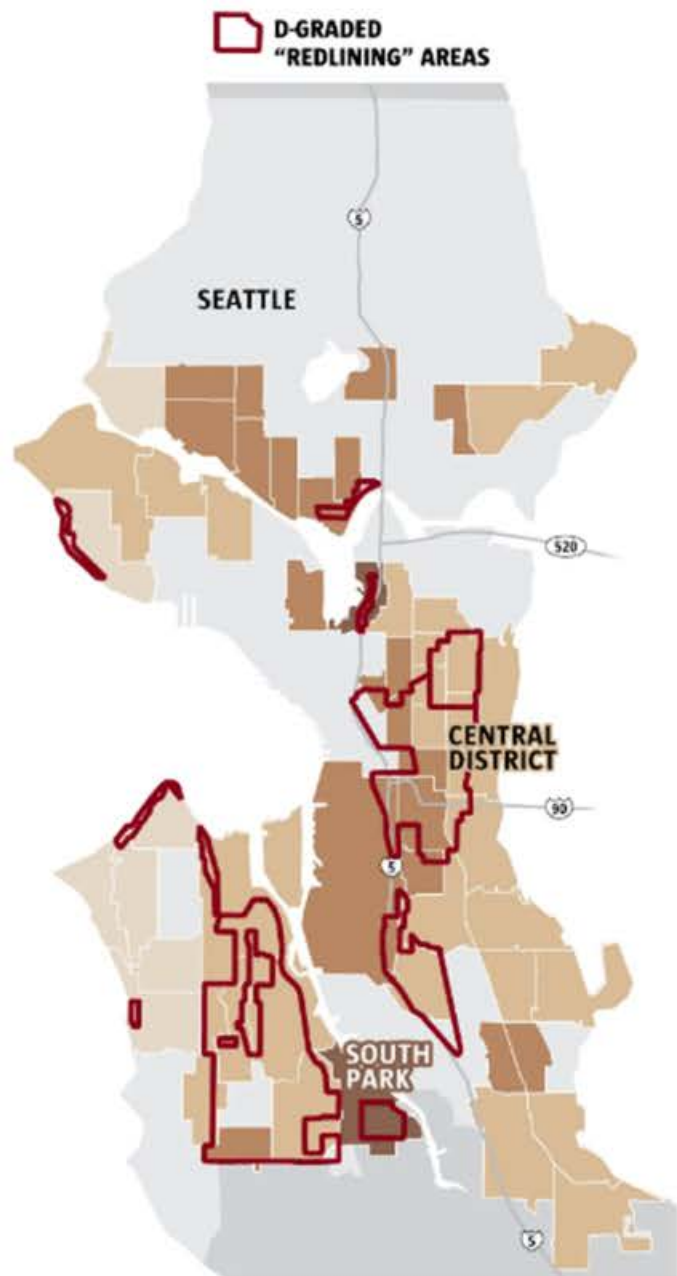
Justice means fixing the root cause and the system itself to offer equal access to opportunities from the start.

Washington







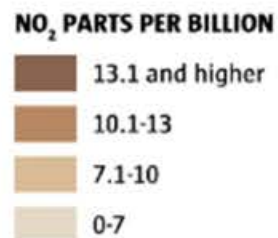


Redlining vs. Air Pollution Maps

"These maps, which were drawn by people who are no longer alive, this racist urban planning from the 1930s, is still having an impact on the air pollution inequality that we face today."

Julian Marshall, one of the report's lead authors and a professor at the University of Washington

Redlining vs. Air Pollution Map Seattle





Who 'breathes' the burden?

Due to high housing costs and historical discrimination, low-income and minority neighborhoods are clustered around industrial sites, ports, and other air pollution hot spots.¹

In the United States, communities of color are exposed to higher levels of air pollution at every income level.²

Exposure to air pollution, especially PM2.5, can contribute to increased lung and heart ailments, asthma, diabetes, developmental problems in children, and premature death.³

Pregnant women exposed to even low levels of particle pollution are at higher risk for premature birth.⁴

**BREAKING
BARRIERS**
COLLABORATIVE



Driver Health

- Poor psychological, physiological health
- Diesel exhaust inside cab
- High concentrations of Ozone, Volatile organic contaminants, and nitrous oxide

Consequences of Inhaling pollutants: lung cancer, respiratory and cardiovascular disease, birth defects, and premature death.

Impacts disproportional for Low income, BIPOC & Immigrant communities



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Electric vehicle fleet penetration helps address inequalities in air quality and improves environmental justice

[Shih Ying Chang](#) , [Jiaoyan Huang](#), [Melissa R. Chaveste](#), [Frederick W. Lurmann](#), [Douglas S. Eisinger](#),
[Anondo D. Mukherjee](#), [Garnet B. Erdakos](#), [Marcus Alexander](#) & [Eladio Knipping](#)

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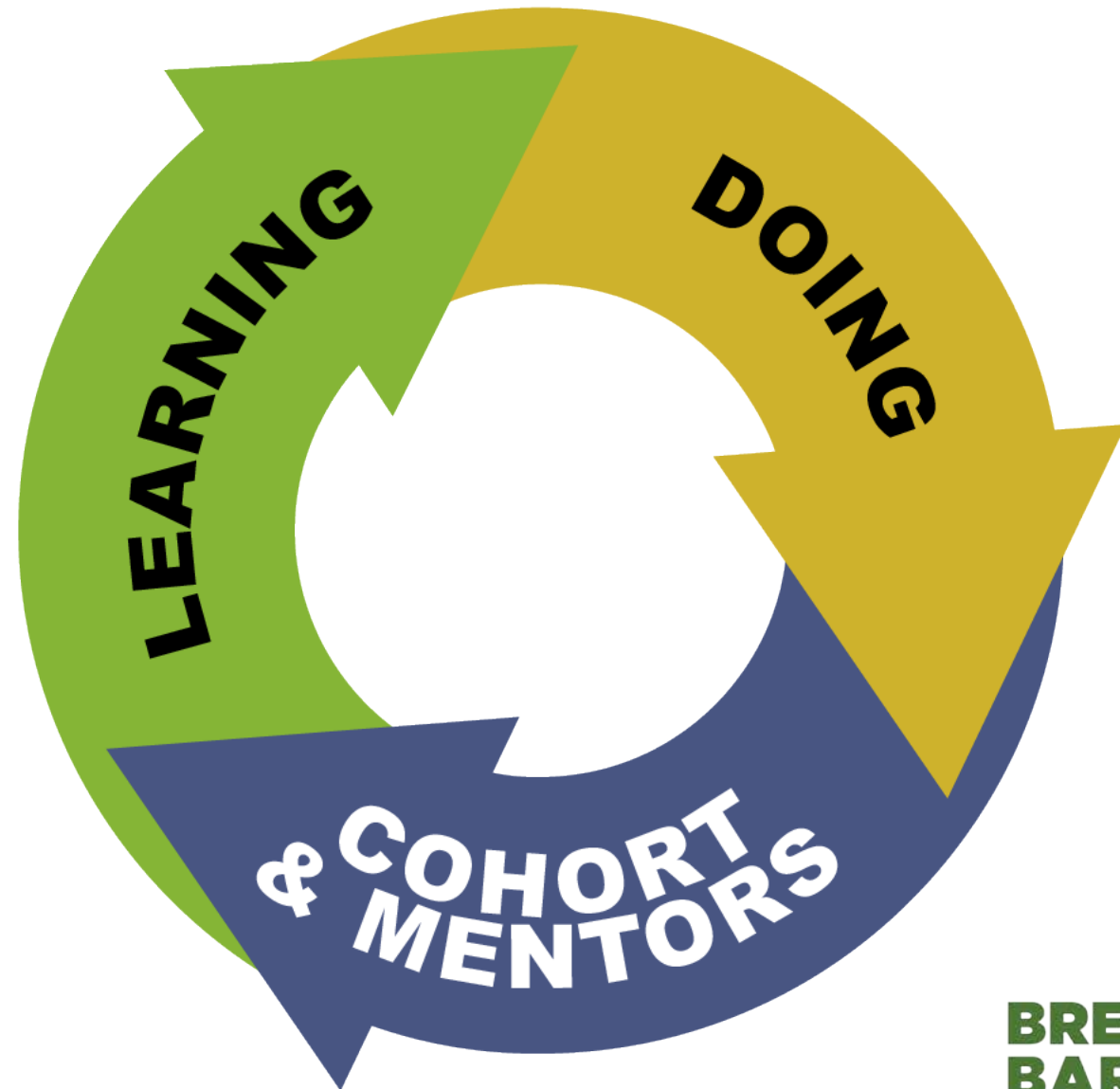
Breaking Barriers Collaborative

Helping PNW
businesses accelerate
efforts to equitably curb
their climate emissions.

**BREAKING
BARRIERS**
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Fleet Electrification Accelerator



**BREAKING
BARRIERS**
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Learning: Engage with Experts

Utilities



Fleet Managers



Policy Experts



Doing

- TCO analysis
- Equity route analysis
- Identify vehicles and charging
- Site evaluations
- Ride & Drive
- Identify incentives
- Workplace training



Cohort & Mentorship

- Peer gatherings and networking
- Collab between program participants
- Alumni program
- Free Consulting
- Connections with SME



Cohort: Diverse Organizations



Acceleration

“I feel confident in my knowledge of how to transition our fleet from gas/diesel to electric vehicles and am further ahead in our fleet decarbonization transition.”

16%

Before the accelerator

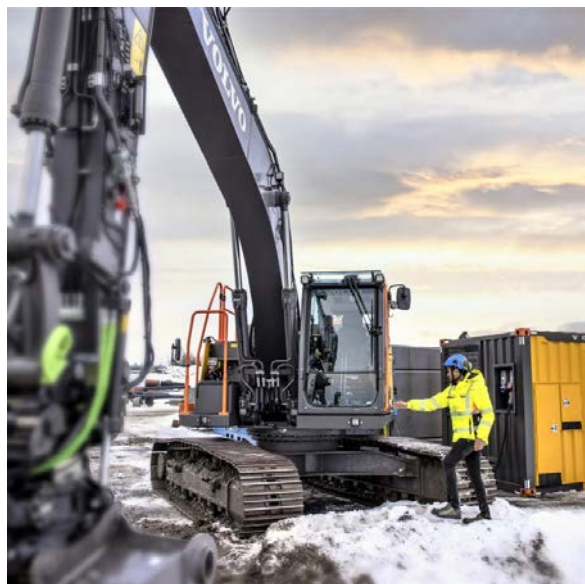
90%

After the accelerator



Grad Success stories

Skanska: only electric vehicles (EVs) in its operations moving forward. Volvo EC230 Electric excavator: cut 66% of emissions per hour and saved 74% in operating costs

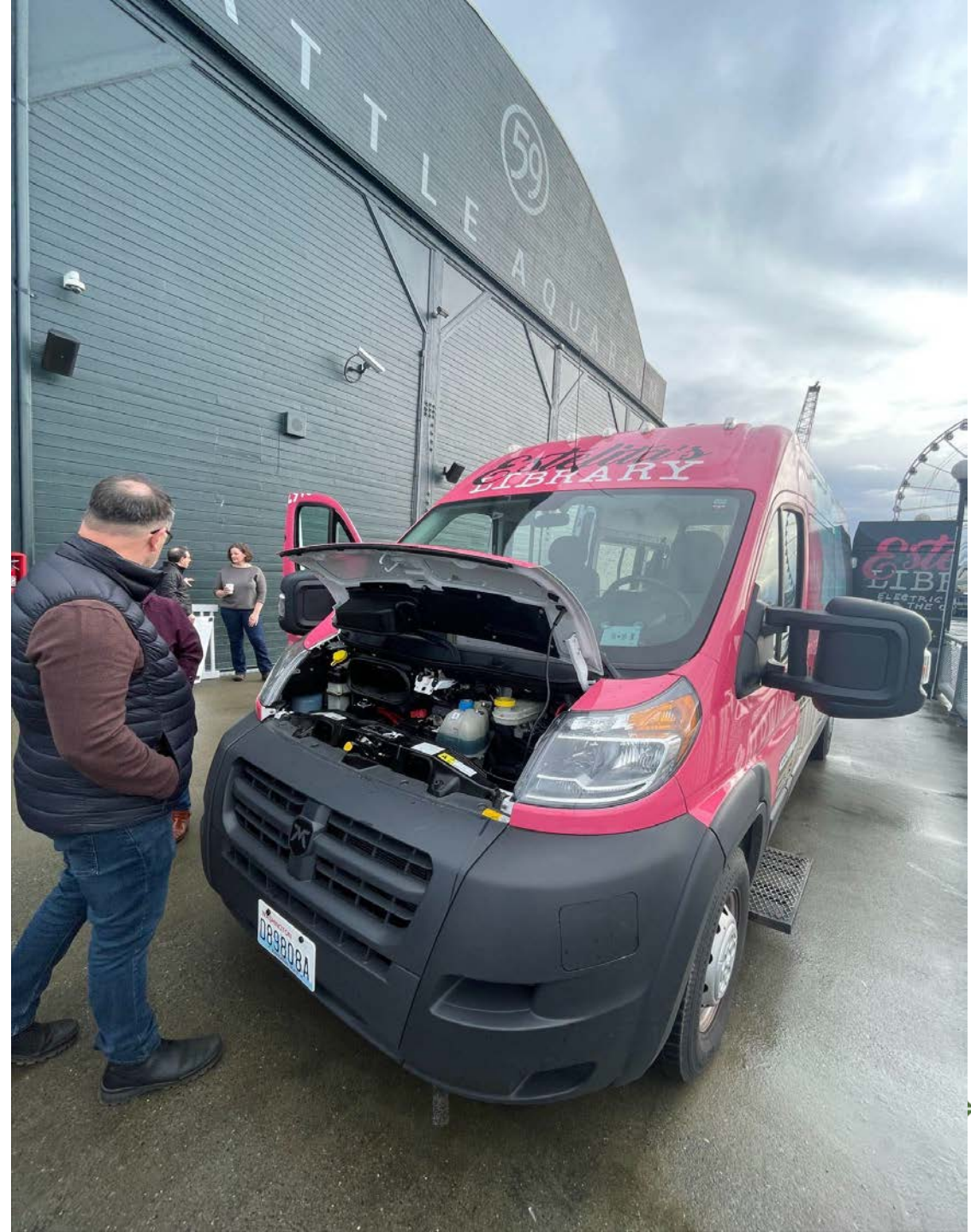


MTRWestern: In 2023, they launched the first fully electric intercity bus route in the U.S., completing the nearly 200-mile roundtrip on a single charge. Saves 10,000 gallons of diesel fuel annually, reducing CO2 emissions by 109 tons.



Challenges

- Grid & permitting constraints
- MHD vehicle availability
- Funding & costs
- Change Management



Accelerating Electrification

- Peer diversity & community
- Concrete roadmaps
- Focusing on equity
- Relationships formed both intra- and inter-organization
- Momentum built during in-person gatherings
- Regional focus



Small Business EV Launchpad

- Tailored for BIPOC small businesses
- Businesses receiving stipends for participation
- Fleet electrification plans
- Complete grant applications
- \$25k for each business to purchase their first EV
- Free charger & install



**BREAKING
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**LET'S
ACCELERATE
TOGETHER**