Autonomous, Connected, Electric and Shared Mobility:

Bellevue's CommutePool Proposal

Washington State Transportation Commission

October 16, 2018

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State and Local Transportation Goals

- Target Zero/Vision Zero. Zero vehicle deaths and serious injuries by 2030
- Cut Green House Gas to 1990 levels by 2020
- Commute Trip Reduction Act Goals
- Cut VMT (Vehicle Miles Traveled) 18% by 2020

Unmet Goals

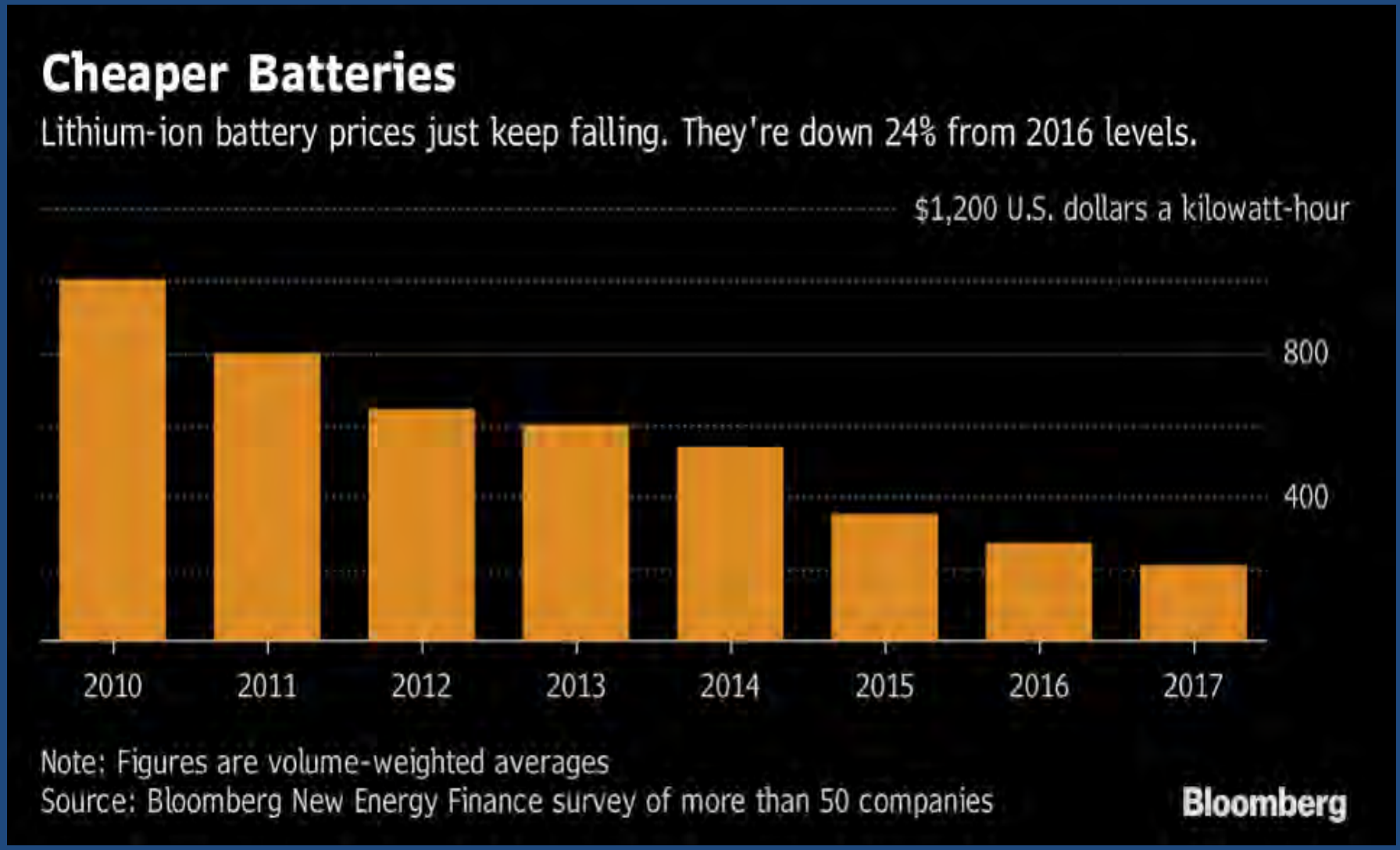
- Target Zero: Traffic deaths in Washington last year were 537, up from 419 in 2014. Serious injuries increased to 2,209.
- GHG reduction: “Added carbon pollution”
- Commute Trip Reduction: “A 22 % increase in urban delays due to congestion”

“A world with zero crashes, zero emissions and zero congestion”

“The future of personal mobility will be driven by the convergence of electrification, autonomous vehicles, connectivity and shared mobility services.”

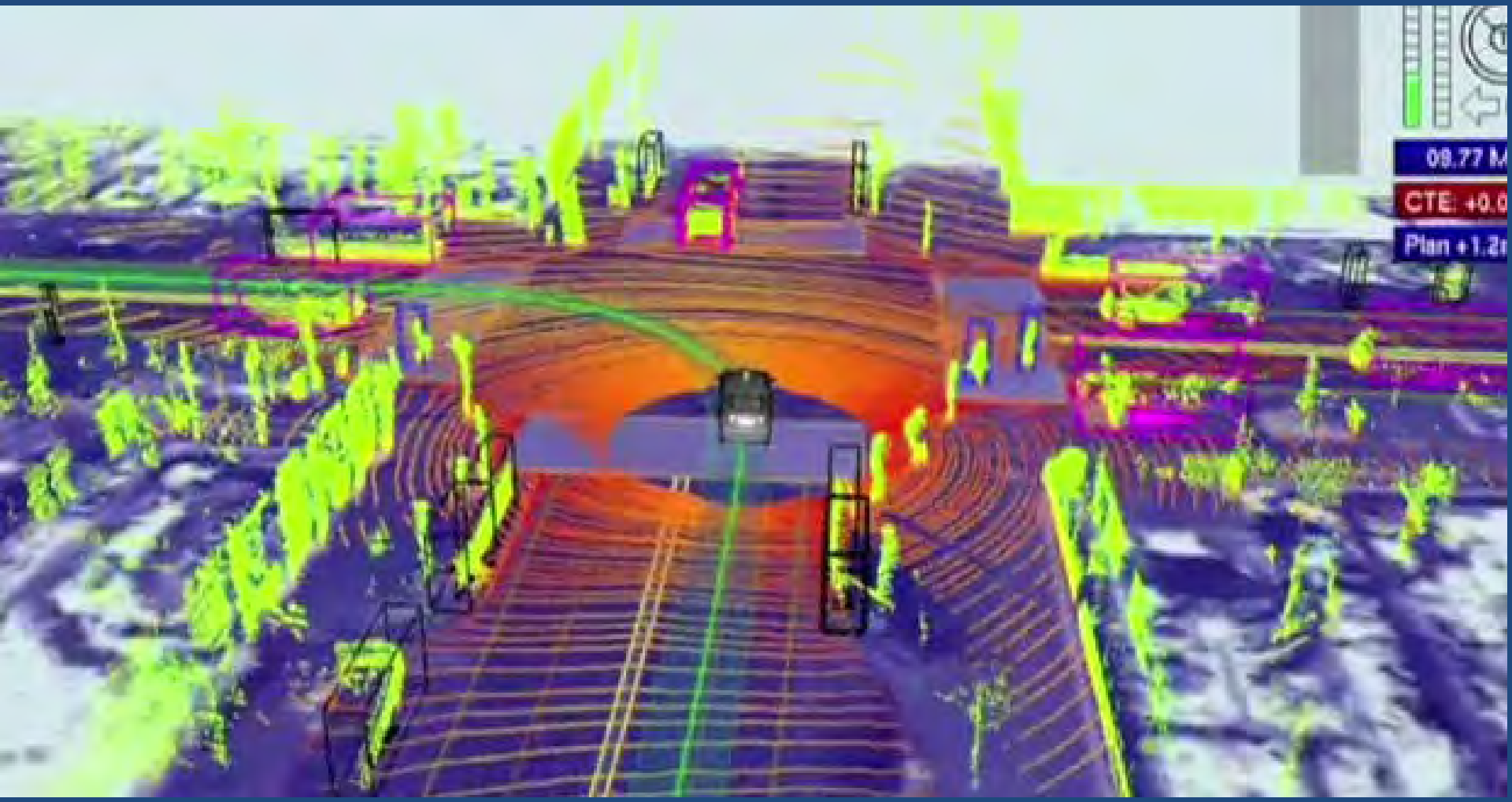
--Mary Barra, CEO of General Motors

EV battery costs drop from $1,000 to under $200/kWh

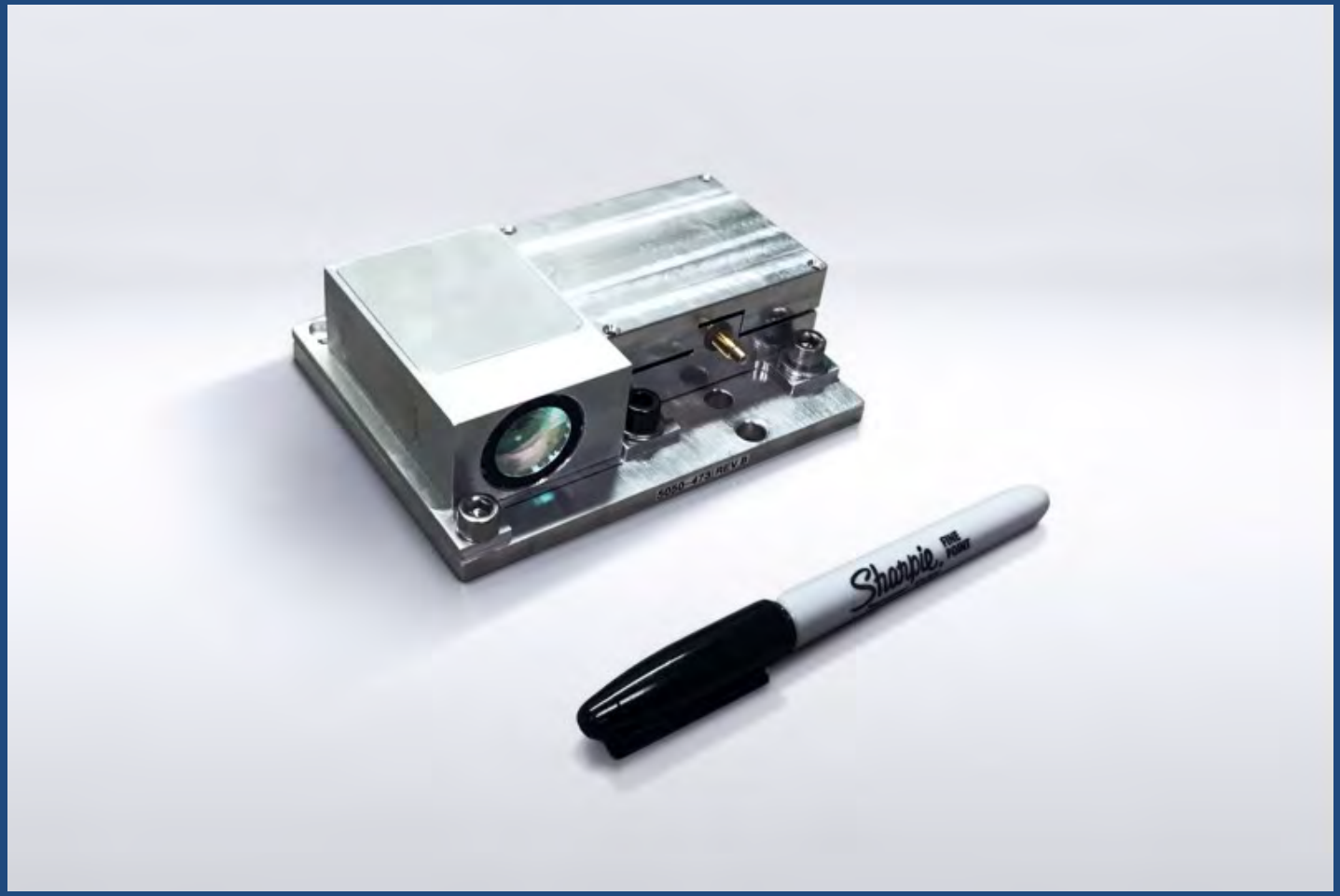


61,000

LiDAR in Autonomous vehicles



LiDAR costs drop from $70,000 to $95



VW concept car

Autonomous, Connected, Electric, Shared Vans

Waymo’s Jaguar I-Pace Electric, Autonomous Cars

Waymo’s Jaguar I-Pace Electric, Autonomous Cars

GM’s Cruise in San Francisco

Deadly truck wrecks soar, but pleas for action ignored

Five people died in this fiery crash on Interstate 70 that was triggered when a truck slammed into vehicles stopped due to road construction.

More than 4,300 people were killed in accidents involving semis and other big trucks in 2016, a 28 percent increase over 2009, according to the federal government.

PACCAR’s autonomous trucks

Bellevue’s Smart Mobility Vision

Use innovation and partnerships to deploy emerging technologies to enhance the

safety,

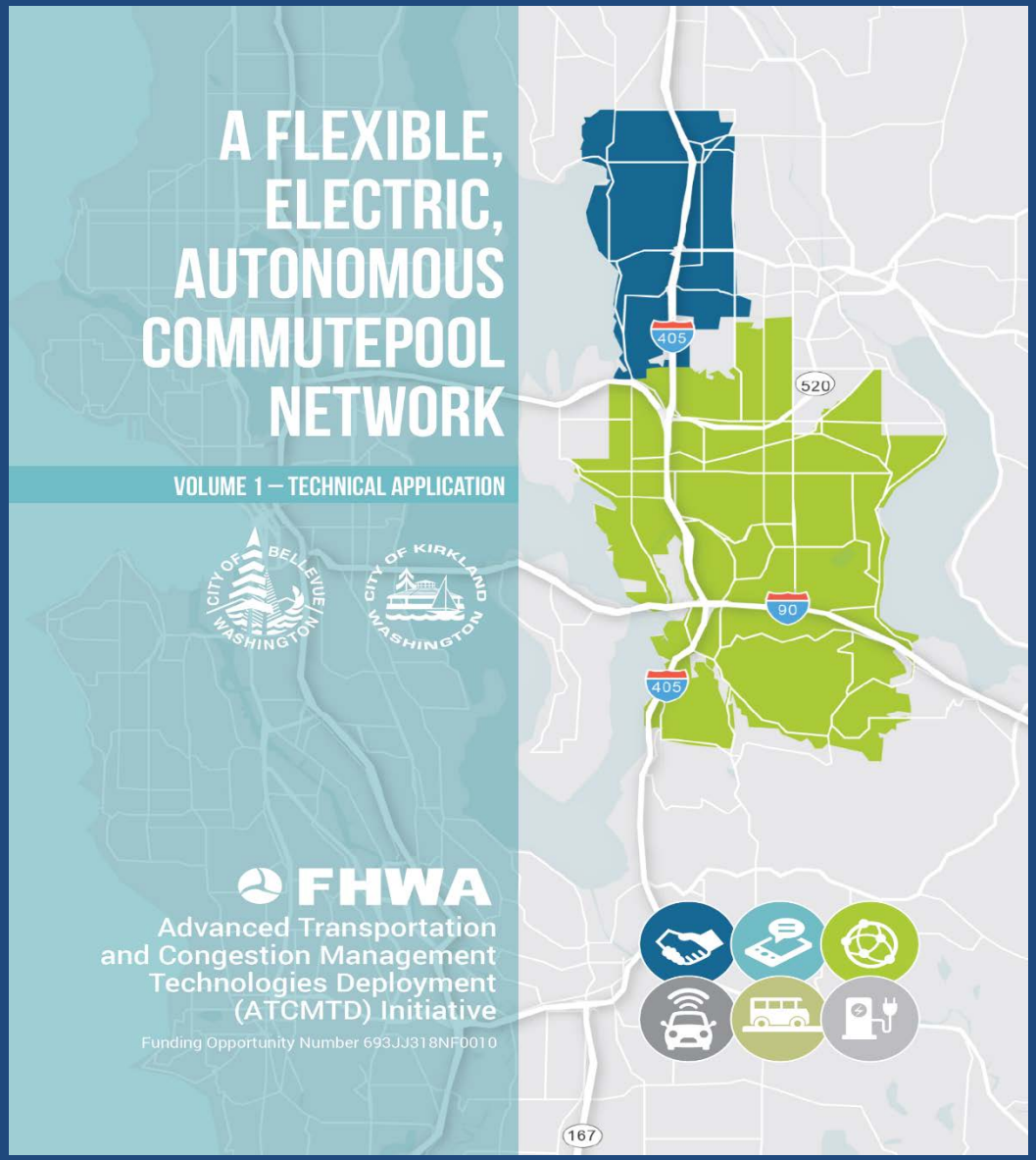
sustainability,

efficiency, and

accessibility

of Bellevue’s transportation system.

The Bellevue/Kirkland Grant Application



6 Building Blocks for the flexible, electric autonomous CommutePool Network

COMMUTEPOOL NETWORK

1. Rideshare hailed from mobile apps within a similar timeframe and geographic area.

2. Pick-up set at a designated central leased parking lot.

3. Rideshare to Bellevue/Kirkland.

4. Drop-off at central location and riders disperse to their respective employers.

Deployment Partners

Research/Evaluation Partners

Employer Partners

LA Metro

a.bacall
"This really is an innovative approach, but I'm afraid we can't consider it. It's never been done before."

Bellevue Smart Mobility Goals

1. Make Bellevue a nationally recognized leader
2. Improve safety
3. Leverage Bellevue's ITS network to support the growth of the technology industry
4. Improve the efficiency of the roadway network
5. Expand and enhance ITS functions
6. Create more mobility choices
7. Provide accurate and timely information
8. Enhance sustainability
9. Pursue private and public-sector partnerships

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