

Transportation Infrastructure Amendments (2023 Senate Bill 125) and UTA Rocky Mountain Power Partnership Update



Board SB 125 Update

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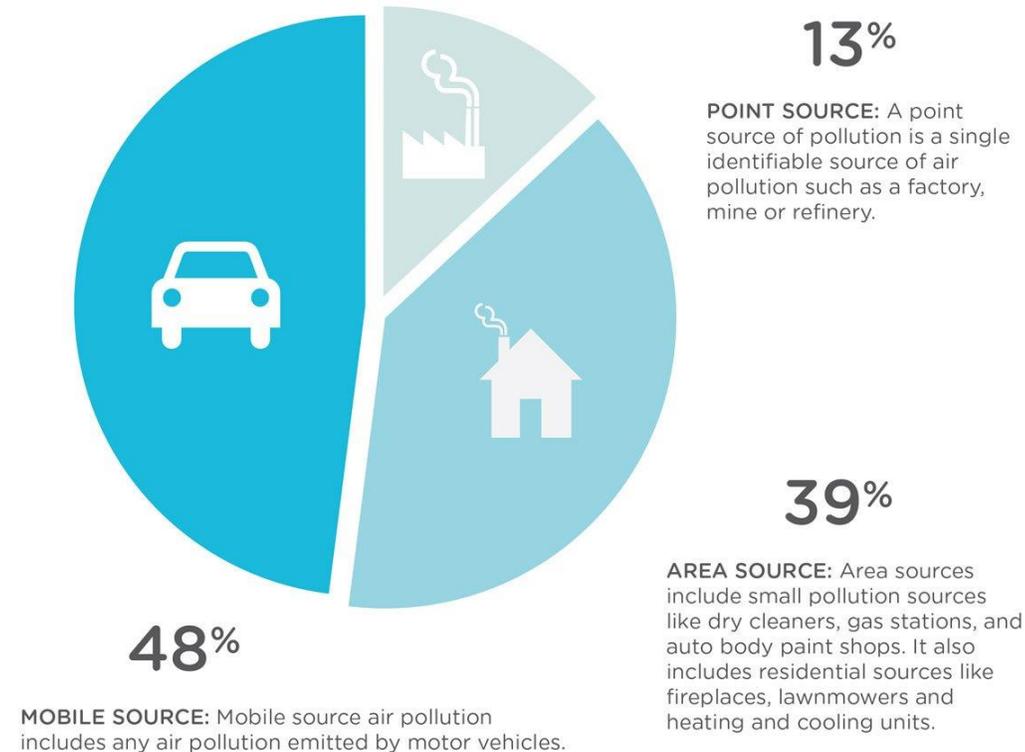


Why Electrify Transportation?



Where does Utah's air pollution come from?

In 2014, Air pollution along the Wasatch Front was measured coming from the following sources:



Source: Utah Division of Air Quality
• Average winter day
• NOx, VOC, and direct PM2.5
(most important contributors)

- Electrification can reduce emission from mobile and area sources
- Opportunities to better utilize electricity when it is available through batteries on vehicles and wayside storage
- Attract industry and economic development
- More consistent pricing of energy



SB 125 Details

- ❑ Designates ASPIRE as the lead research center in developing a strategic action plan for the electrification of transportation infrastructure
- ❑ The plan will guide the transition to an electrified and intelligent transportation system
- ❑ Creates a Steering Committee and Industry Advisory Board
- ❑ ASPIRE partners with the University of Utah, Brigham Young University, and eight other universities across the world in its research, which is supported by NSF, industry partners, and research grants from the U.S. Departments of Energy and Transportation
- ❑ Requires ASPIRE to prepare first annual report by August 2024 (annually thereafter)



ASPIRE Vision

Sustainable and Equitable Future for Transportation
with Widespread Vehicle Electrification

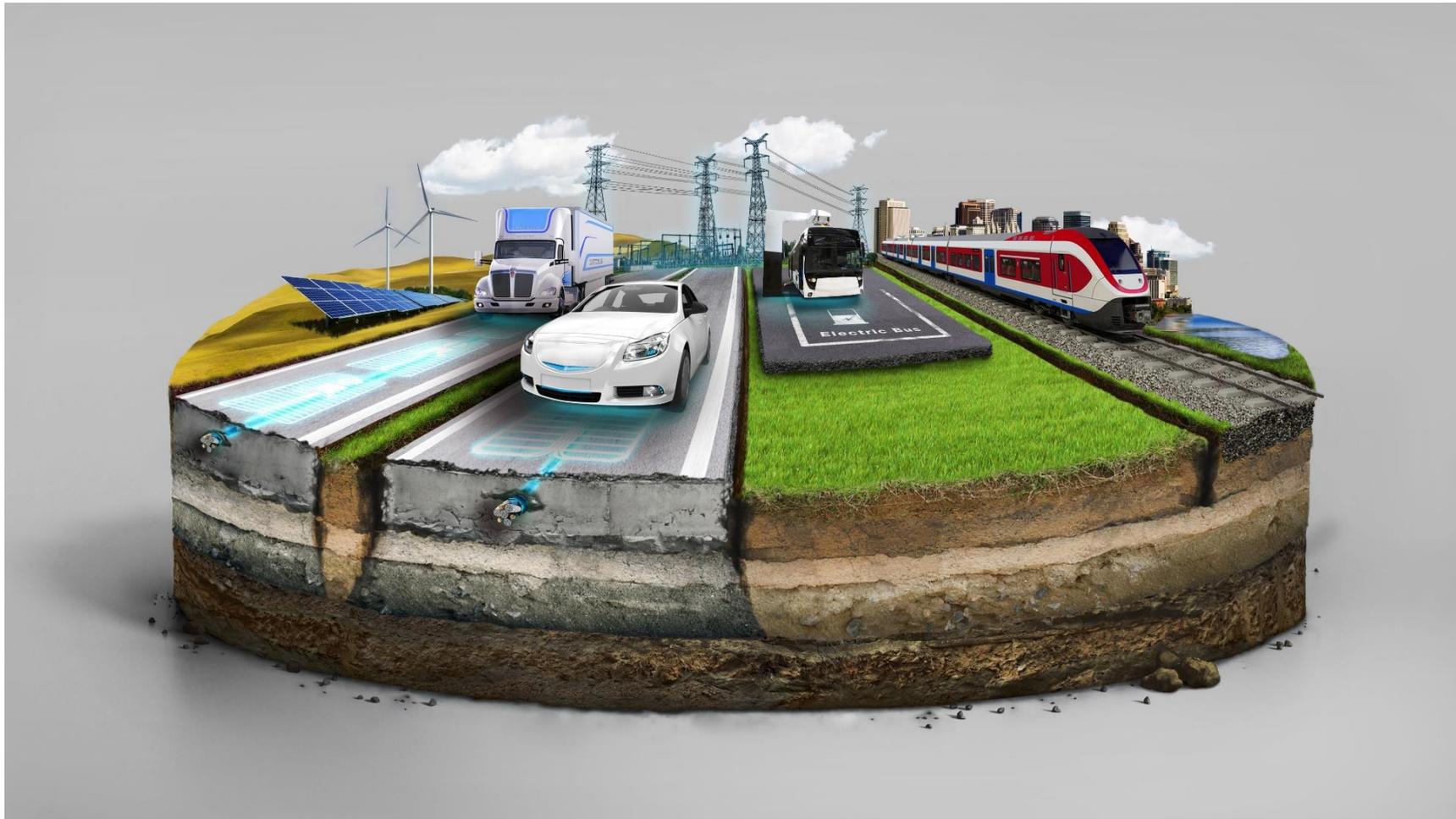
Inclusive Access to

Improved Air Quality

Reduced Cost to Move
People and Goods

Training and Good Jobs

Shared Electric Echo System Vision

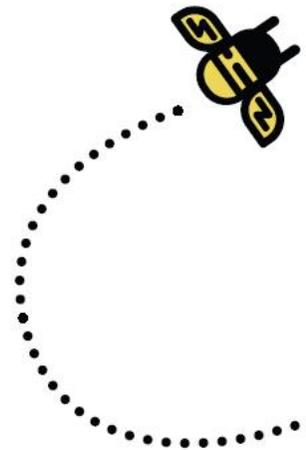




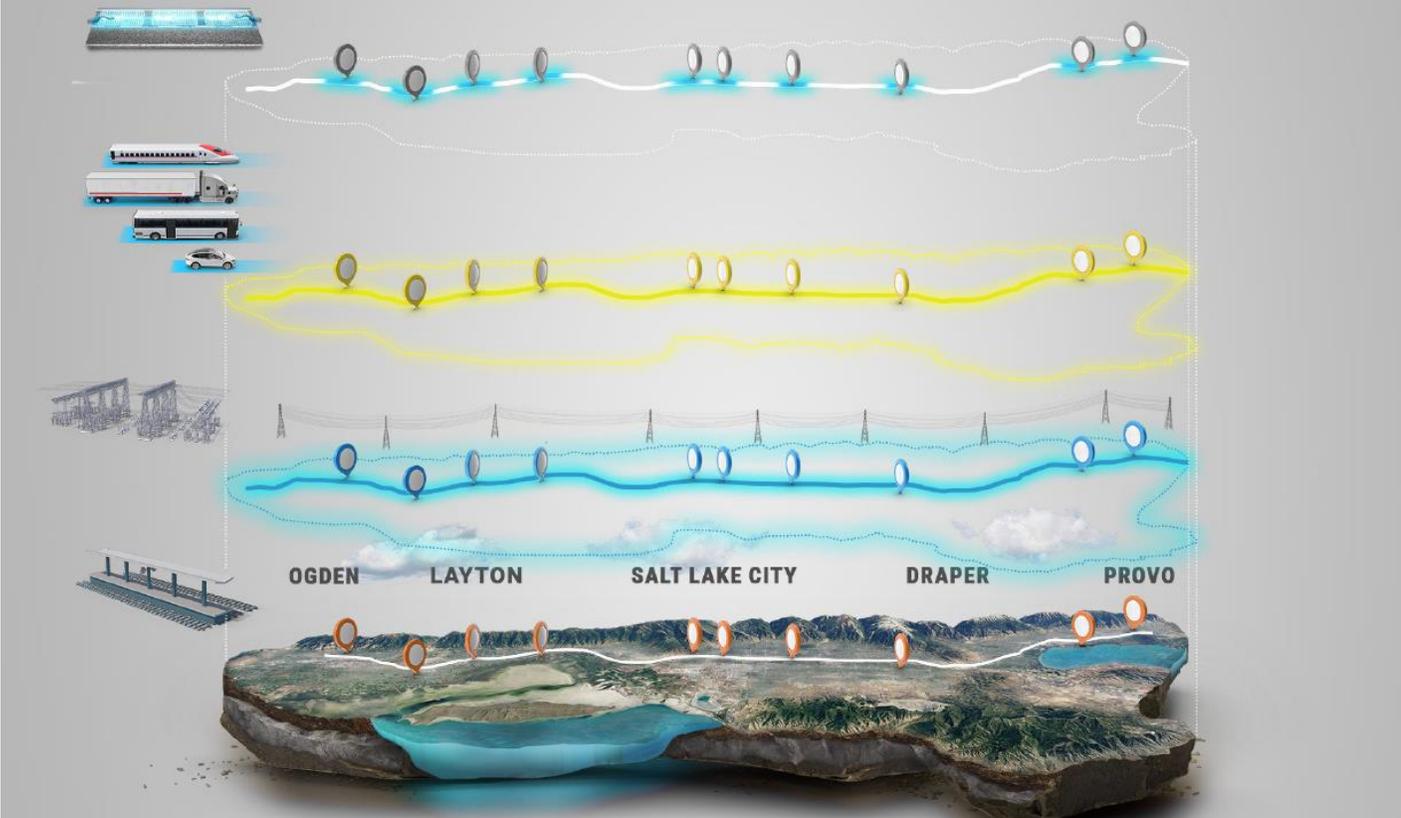
**Utah Intelligent Electrified
Transportation Action Plan**



**Utah
Intelligent
Electrified
Transportation
Action Plan**



Coordinated Multi-modal Electrification



Commuter and light rail serve as roadmap for intermodal charging hubs

Multi-megawatt substations at hubs with coordinated grid loading

Fast charging networks leverage rail infrastructure for trucks, buses, and passenger vehicles

Future electric roads leverage shared rail & road infrastructure along corridor

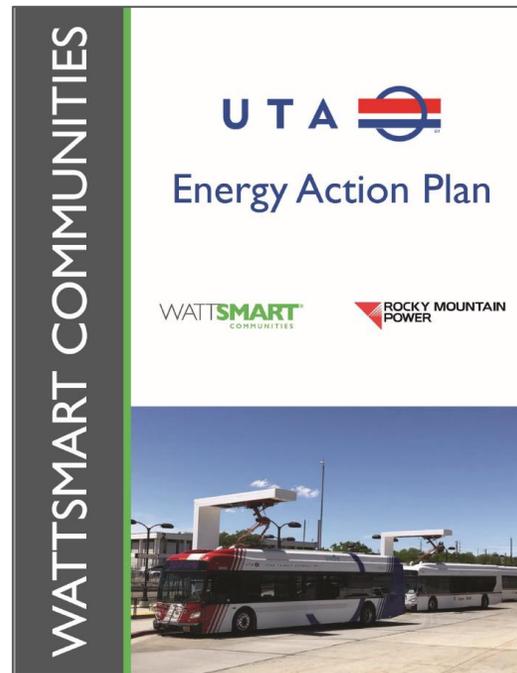
Shared public infrastructure with load management reduces cost and emissions for all transportation



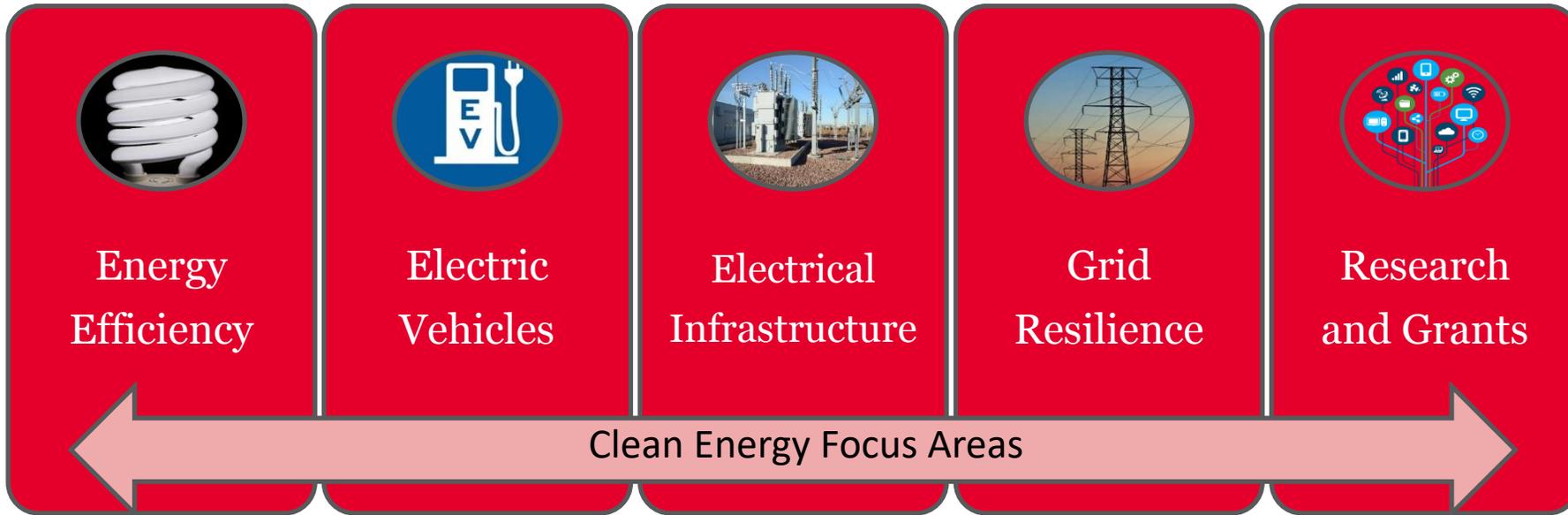
RMP Partnership

- ❑ To date RMP has provided \$2M+ in grant funding for electric bus charging infrastructure
- ❑ RMP funded a \$2M research initiative to understand the impact of TRAX and battery electric buses on the electrical grid
- ❑ RMP and UTA have done an energy audit on UTA's facilities through the WattSmart Program
- ❑ RMP has supported the development of charging at 10 sites so far
- ❑ Shared infrastructure project at Wasatch 3900 South, opening this month

UTA's S-Line now runs on 100% renewable energy after investments
By Carter Williams, KSL.com |
Posted - Jun. 10, 2021 at 7:11 p.m.



UTA RMP Partnership Key Areas



UTA and Rocky Mountain Power, RMP, have an interagency partnership.



Charges completed to date

- ❑ 8 Depot Chargers SLC
- ❑ 6 Depot Chargers Ogden
- ❑ 6 pantograph chargers: 3 SL Central, Orange Street, 2 Ogden BRT
- ❑ 4 under construction: Wasatch 3900, 2100 South, Ogden BRT, Kimball Junction for High Valley Transit



Factors to determine new locations

- University of Utah systems modeling
 - Long Range Transit Plan
 - 5 Year Service Plan
 - End of Line Locations
 - MPO Long Range Plan
 - SB 125 Plan
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- An update charging plan will be completed by December 2024

