Acknowledgments

My appreciation to the working group & Advisors

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Feb 2024

HB481S1 NON-ROAD CLEAN AIR TECHNOLOGY UPGRADE INCENTIVES AMENDMENTS

Rep. Paul Cutler

Clean Air Background Data

- EPA has designated Non Attainment Areas in Utah (Wasatch Fron and the Uinta Basin) for National Ambient Air Quality Standards NAAQS.
- Reducing diesel emissions shows progress in nonattainment areas (reducing the risk to our transportation plans & funding)

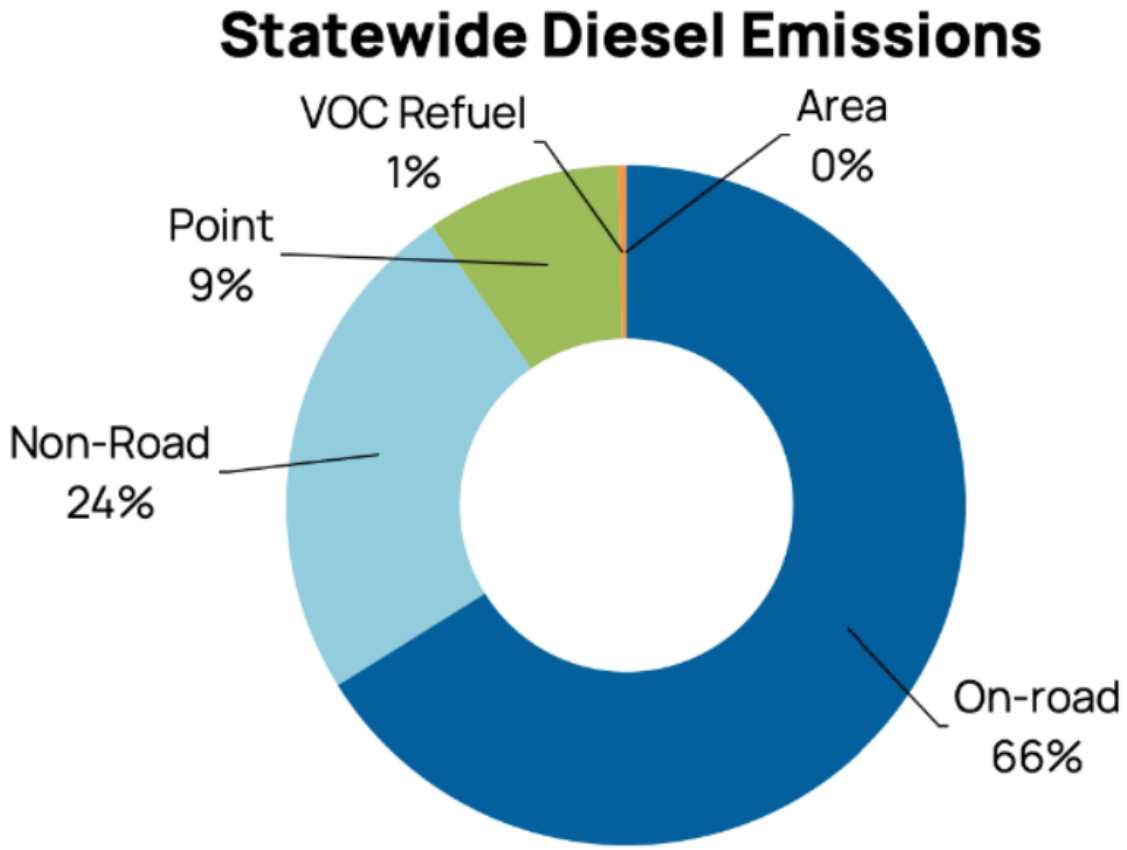


Figure 2: Utah Statewide Sources of Diesel Emissions of NO_x, VOCs, $PM_{2.5}$, SO_2, and NH_3

Switcher Locomotives

Clean Air Act Exempts Railroad from Regulation

Union Pacific
32 switchers in the State
18 in SLC Roper Yard
7 are proven make/model for a “repower”

Chevron, Flying J, Marathon also have switchers (likely older units, heavy polluters, used infrequently)

Short Lines:

Patriot Rail
11 switchers, older fleet

Utah Railways
(G& W)
12 switchers,

Savage
2 switchers,
Plans for 6 in coming months

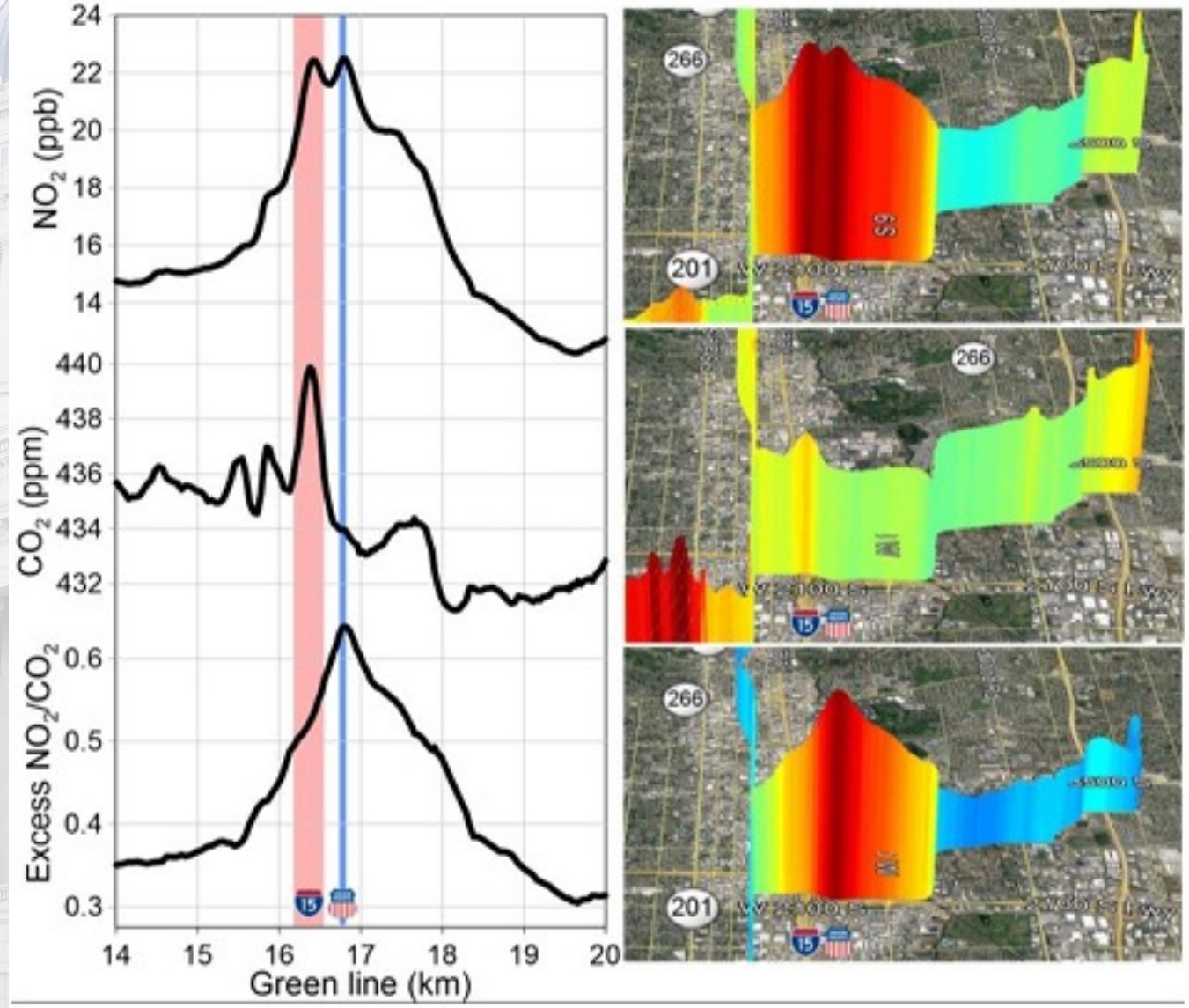
Background Data

Monitored NOx emissions

NOx emissions at the Roper yard in South Salt Lake are high enough to be detected as a distinct “peak” by the University of Utah TRAX air quality study monitors

The NOx emissions peak observed at the roper yard (~20 switch engines) is equal in magnitude to the peak observed when crossing I-15 which carries on average a count of 200,000 heavy duty diesel trucks per day.

Figure 1 - University of Utah TRAX Monitor Data



Non-road Diesel Clean Air Strategy
Showing Progress in EPA Non-Attainment Areas

Priority 1: Upgrade switcher locomotives

a) Inland Port Service Area *(UPRR agreement leveraging Inland port & federal grants)* — No Legislation needed

b) Incentives for other Utah railroads *(leverage High-Cost Infrastructure Development Tax Credit)* — HB124S1

Priority 2: Idle reduction technology incentive via existing Heavy Duty Vehicle Tax Credit Program

a) Incentive for railroads — HB481S1

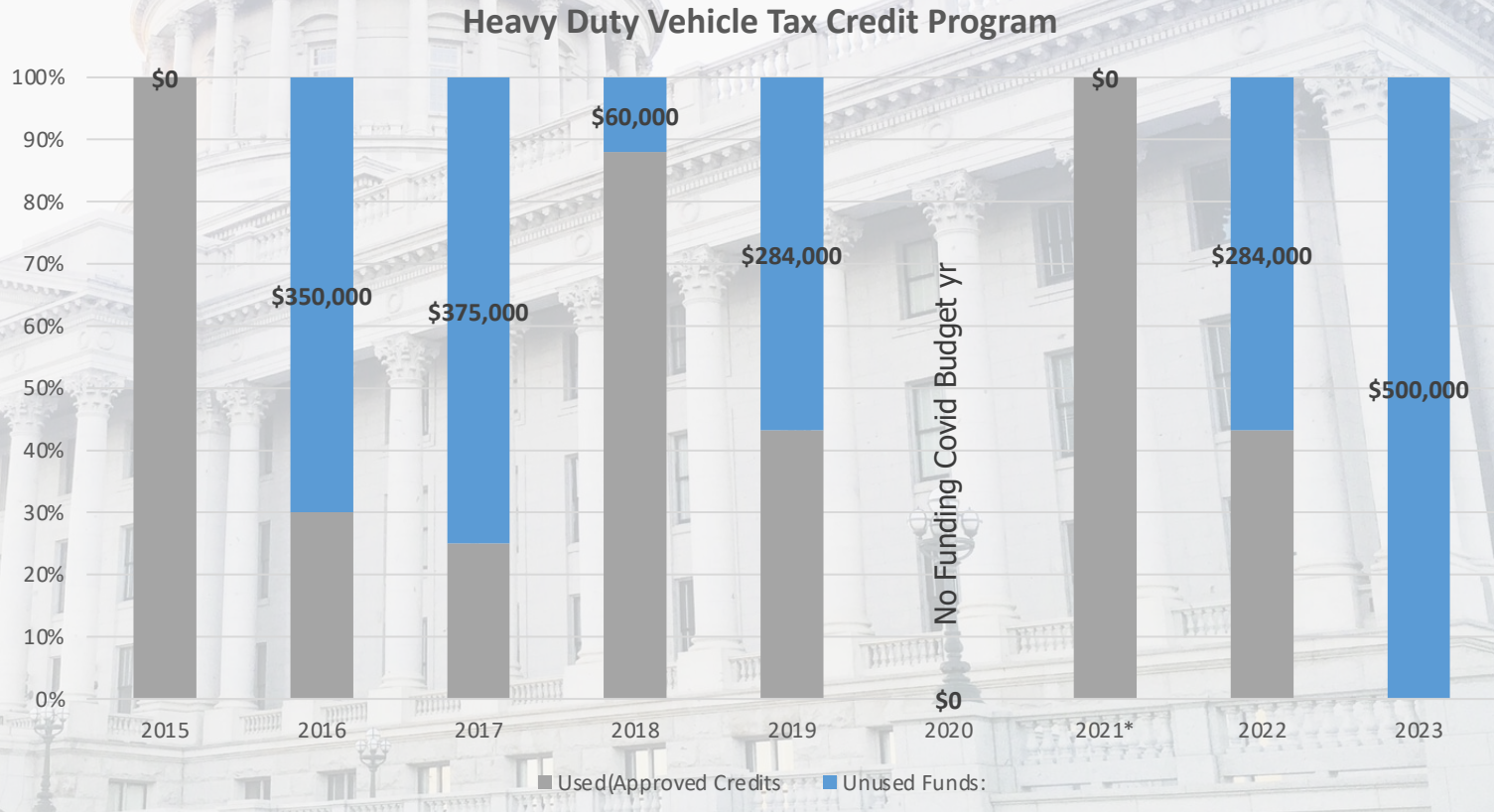
b) Incentive for non-road construction equipment — Future…

Existing Heavy-Duty Vehicle Tax Credit Program ($500k/yr) (currently only for on-road alternative fuel commercial vehicles)

HB481 expands this to cover idle reduction technology for railroads

Tax Year	Credit	
2015	$	25,000
2016	$	25,000
2017	$	25,000
2018	$	20,000
2019	$	18,000
2020	$	-
2021*	$	15,000
2022	$	13,500
2023	$	12,000
2024	$	10,500
2025	$	9,000
2026	$	7,500

Per unit credit decreases each year



HB481S1: Expand Existing Heavy-Duty Vehicle Tax Credit Program ($500k/yr)

Expand to “Idle Reduction Technology” for Locomotives

a) Leverage Existing DAQ program (no new overhead)
b) Add “Locomotive Idle-Reduction Device” credit
   1. Requires application to Division of Air Quality
   2. List of EPA approved technologies
   3. Tax credit up to 50% of the cost (post performance)
   4. Standardize at $15,000 max credit /unit

Main engine is turned off while 20–40 hp auxiliary power unit (APU), is used to maintain oil / coolant temperature.

How Much Does Idle Control Technology Cost?

The cost of idle control technology depends on its manufacturer. In general, devices for locomotives cost between $27,000 and $40,000. This initial investment, however, is more than offset by the fuel saving benefits of the techn ogy. If we conservatively assume switchers burn 3 gallons of fuel per hour and idle 3,000 hours per year, at rough $2.50 per gallon of fuel, owners can pay for idle control technology through fuel savings in less than 18 months.


THANK
YOU