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Testimony regarding HB2025,

Co-Chairs Gorsek and McLain and members of the Joint Committee on Transportation:

As I have noted previously, Southern Oregon Climate Action Now is the oldest grassroots climate organization in the Rogue Valley and represents some 2,000 Southern Oregonians who are concerned about the climate crisis and seek federal, state and local action to address it. We are rural and coastal Southern Oregonians who live on the frontlines of the warming, reducing snowpack, heatwaves, drought, rising sea level and the increasing wildfire risk that these trends conspire to impose on us. Because of our concern, we pay close attention to efforts nationally, statewide, and locally that impact our collective efforts to address the climate crisis. As our logo above indicates, the focus of SOCAN is to promote action through science while encouraging that this be undertaken through a social justice lens.

I write today in connection with HB2025, the Oregon Transportation Reinvestment Package (TRIP), to urge the committee to incorporate into the final package the following considerations.

First, however, I'd like to note that we (SOCAN) acknowledge the funding plight faced by the JCT and ODOT in relation to transportation. We recognize that the financial crunch is driven by a combination of (i) the static state gasoline tax, (ii) the inflationary trend in road maintenance and construction, (iii) the increasing efficiency of the internal combustion engine vehicle resulting in less gasoline being purchased, and (iv) the encouragement to Oregonians to go hybrid or fully electric with their vehicle purchases and thus cease buying gasoline. Inevitably, the result of these trends will be a substantial shortfall in funding for statewide transportation needs.

In general, we support the principle of increasing the gasoline tax including indexing that tax to inflation or the Cost of Living Adjustment (COLA), though in a manner that is equitable and does not unduly penalize low-income Oregonians.

In terms of the overall plan, I also note that we were appalled at an irrational rejected proposal that one route to raising funds for transportation is to eliminate the Climate Protection Program (CPP) and replace it (Lugo 2025; VanderHart 2025). The proposed replacement quickly

and reasonably became designated a 'Cap and Pave' program. The CPP was developed over several years with immense public input. It may not be perfect, but we can guarantee that it is far better than any cap and pave program could possibly be if it were developed in the few short days between now and the end of the session. We were disappointed that the cap and pave proposal received more consideration than instant rejection.

## Where is the Climate Crisis?

As Le Page (2025) reported: "Current policies of governments around the world are likely to result in Earth warming by anywhere between 1.9°C and 3.7°C by 2100, with potentially more to come in the 22nd century." This is entirely consistent with the projections identified by the United States Geological Survey for Oregon, as depicted in Figure 1, which reveals an



## Figure 1 Oregon projected temperature to 2100. (USGS 2925)

anticipated warming of some 10 degrees Fahrenheit by 2100 compared to the 1981-2010 average (USGS 2025). In this graph, the red line represents the mean projection for the Shared Socioeconomic Pathway (SSP) 585 that was initially identified as the 'worst case scenario' (Hausfather 2018) but has come to be described often as the 'business as usual scenario' (e.g., Hausfather 2019) because it's the trajectory we seem to be following.

Since my background is biology, with a focus on ecology and conservation biology, I relate the Oregon and global future temperatures to the main factors influencing the distribution of global natural ecosystems (known as biomes). How these biomes are distributed across the planet in relation to average annual temperature and precipitation is depicted in Figure 2 (modified from Whittaker 1975). As can be seen, a shift in temperature of just a few degrees Centigrade (conversion C to F; C = F\*1.8) can be enough to eliminate biomes from their current

locations across the globe. While range shifts are possible for flora and fauna when climatic changes are slow, the rate at which human-imposed temperature shifts are occurring is faster than the range shift potential of global biomes. The result of global temperature projections as



Figure 2 Distributions of natural ecosystem (biomes) in relation to average annual temperature and precipitation. (Modified from Whittaker 1975)

depicted in Figure 1 will likely be that the ongoing viability of most, if not all of, both Oregon's and Earth's biomes will be severely compromised, along with the biodiversity of the flora and fauna that they comprise. Climate change, along with our unsustainable use of land, water and energy are the major contributing factors to our csusing the current sixth extinction (WWF undated). Since our agriculture, forestry and fisheries are dependent also on these two variables, the projections pose a serious threat to these critical human endeavors. From a global, national or state perspective, we are confronted with a climate catastrophe to which it will be impossible to adapt. We are in a clear 'all-hands-on-deck' moment where we must both collectively and individually (in our personal, professional and legislative lives) do whatever we can to avert the current global trajectory. If we are to achieve the adjustment in climate trend that is needed, we cannot, in anything we do, ignore the climate crisis.

We note that transportation is listed consistently by DEQ as the leading contributor statewide to our emissions of regulated greenhouse gases (DEQ undated). We are extremely disappointed, as will be future generations of Oregonians that the TRIP as reported to date fails to contain recognition of the need for the JCT and ODOT to incorporate into transportation planning consideration for how proposals contribute or fail to contribute to the statewide goal of reducing greenhouse gas emissions. For the reasons identified above, we urge the Joint Committee on Transportation to take seriously the role it can play in reducing transportation emissions. Frankly, simply ignoring the climate crisis is irresponsible.

We understand fully that Oregon's contribution to national greenhouse gas emissions is small, and our contribution to the global problem is even smaller. However, if we, in Oregon, are to urge other jurisdictions (state and national) to take what steps they can to reduce emissions, we must do what we can ourselves. This means that the impact of proposed programs on the climate crisis must be at the center of consideration for all legislative proposals including this transportation package.

One route that can be included in the TRIP is to promote electrification of our transportation system. As the U.S. Department of Energy (USDOE undated) states: "All forms of electric vehicles (EVs) can help improve fuel economy, lower fuel costs, and reduce emissions. Using electricity as a power source for transportation improves public health and the environment, and provides safety benefits, and contributes to a resilient transportation system." Meanwhile the Western Resource Advocates (WRA undated) argue: "Transportation electrification involves transitioning personal cars, commercial fleets of cars and trucks, and public transit like buses and trains from fossil-fueled vehicles to ones powered by electricity. Transportation electrification will fundamentally reshape our transportation and power systems by reducing demand for gasoline and increasing the demand for electricity. The transition to electric vehicles provides substantial economic, environmental, and public health benefits, and the faster the transition occurs, the faster those benefits are realized by our communities. When those vehicles are powered by clean electricity, they can help us make substantial progress in curbing carbon pollution to address climate change." Contrary to the last caveat stated above, it is critical to understand, as Kirk (2023) pointed out: "Even an EV charged on West Virginia's coal-dominated grid will still reduce carbon dioxide pollution by around 30%." As long ago as 2018, the World Economic Forum echoed these sentiments (WEF 2018).

The reason that electrifying our transportation system is beneficial can be illustrated with reference to full life cycle emission assessments of different vehicles. The International Energy Agency (IEA 2024), for example, reported that: "A typical medium car with a petrol (gasoline) engine and driven 42 km per day will be responsible for life-cycle emissions of 54.1 t of CO2-eq over a 15-year lifetime ...." Meanwhile, a Plug-in Hybrid "would produce **36.9 t**, or **32% less** over its lifetime." Finally, a "**battery EV** with a **300 km** range would produce **25.0 t**, **54% less** over its lifetime than a conventional internal-combustion vehicle and **32% less** than an equivalent plug-in hybrid EV. Despite higher manufacturing emissions associated with producing the battery, the battery EV's cumulative emissions are lower than those of its internal-combustion equivalent after **2 years**." The point is that despite the campaign of misinformation and disinformation waged by those promoting continued fossil fuel use and continued climate destruction, time and again full life cycle analyses indicate electrification is beneficial (e.g.,

Olguz 2023). A review of then contemporary literature on this comparison was presented by Verma et al. (2022) corroborating the above conclusions.

We acknowledge that there exist supply chain problems with EVs, notably in terms of the minerals needed in the batteries (e.g., Tyrell 2022). The first response is to note that there are better ways to mine lithium (e.g., Spiller and Kannan 2024) and it is possible to close the loop and recycle (Annnir et al. 2023). Meanwhile, there are also alternatives to the lithium battery (Lee 2024), notably sodium-ion batteries (Wankhede 2025). While the internal combustion engine will always use fossil fuel and emit greenhouse gases, the electric vehicle technology is advancing rapidly and making electric vehicles ever more advantageous from a climate perspective.

In response to the increase in the number of hybrid and electric vehicles on the roads, we also acknowledge that there will likely be a need to impose on those of us and traveling our highways with hybrid or electric vehicles a Vehicle Miles Travelled (vmt) charge. However, rather than establishing a flat rate for vmt, we suggest that this should be scaled on an inversely proportional basis to the miles per gallon equivalent of the vehicle. Such a system would encourage the purchase of more versus less efficient vehicles, an important consideration if and when all vehicles are included in the vmt policy. It would also serve as an inducement to Oregonians to consider purchasing hybrid or battery-powered electrical vehicles.

Consistent with our desire to see the TRIP encourage the electrification of our transportation sector, we would like also to see funds generated from the TRIP allocated to EV rebates and incentivizing EV charging stations.

We would also like to encourage the Joint Committee, when developing its final proposal, to incorporate into it the components of the bill promoting the purchase of new zero-emission school buses as indicated in HB2945(OLIS 2025).

While the TRIP certainly moves us forward in terms of street safety, we would like to see greater emphasis on those aspects of transportation that are consistent with the Department of Land Conservation and Development's Climate Friendly and Equitable Communities (DLCD undated).

It is critical that legislators confronting our transportation problems are not deceived by the anti-science claims coming from the likes of the Heritage Foundation and their Project 2025 (e.g., Richels et al. 2023; Waldman 2024; Colman 2024).

As a member of the Move Oregon Forward Coalition, we (SOCAN) encourage the Joint Committee, in developing its final proposal, to pay greater attention to incorporating safety, climate, equity, and affordability.

In closing, while recognizing the importance of developing a satisfactory funding scheme for transportation in our state, Southern Oregon Climate Action Now takes a neutral position with respect to the bill pending adjustments consistent with the above discussion, especially with

respect to the climate issues, and urges an HB2025 final version that incorporates the above considerations.

Finally, I note that there has emerged a substantial 'no new taxes' call from folks who seem not to understand that there is a critical problem regarding funding our state highways that must be addressed legislatively or our transportation system will suffer. It is not helpful to cry 'no new taxes' unless you simultaneously propose a rational solution to the highway funding problem. Presumably those demanding no new taxes without offering a funding solution will also commit to not using our state highways if this funding problem is not resolved.

**Respectfully Submitted** 

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## Sources Cited

Aannir et al. 2023 Towards a closed loop recycling process of end-of-life lithium-ion batteries: Recovery of critical metals and electrochemical performance evaluation of a regenerated LiCoO<sub>2</sub> <u>https://www.sciencedirect.com/science/article/abs/pii/S0378775323007176LiCoO<sub>2</sub></u>

Colman Z. 2024 Heritage Foundation chief dismisses record temperatures, defends Project 2025. E&E News By Politico <u>https://www.eenews.net/articles/heritage-foundation-chief-dismisses-record-temperatures-defends-project-2025/</u>

DEQ undated Oregon Greenhouse Gas Sector-Based Inventory Data Oregon Department of Environmental Quality <u>https://www.oregon.gov/deq/ghgp/pages/ghg-inventory.aspx</u>

DLCD undated Climate-Friendly and Equitable Communities. Oregon Department of Land Conservation and Development. <u>https://www.oregon.gov/lcd/cl/pages/cfec.aspx</u>

Hausfather Z. 2018 Explainer: How 'Shared Socioeconomic Pathways' explore future climate change Carbon Brief <u>https://www.carbonbrief.org/explainer-how-shared-socioeconomic-pathways-explore-future-climate-change/</u>

Hausfather Z. 2019 Explainer: The high-emissions 'RCP8.5' global warming scenario. Carbon Brief <u>https://www.carbonbrief.org/explainer-the-high-emissions-rcp8-5-global-warming-scenario/</u>

IEA 2024 EV Life Cycle Assessment Calculator International Energy Agency https://www.iea.org/data-and-statistics/data-tools/ev-life-cycle-assessment-calculator

Kirk K. 2023 Electric vehicles reduce carbon pollution in all U.S. states. Yale Climate Connections <u>https://yaleclimateconnections.org/2023/09/electric-vehicles-reduce-carbon-pollution-in-all-u-s-states/</u>

Lee C. 2024 We rely heavily on lithium batteries – but there's a growing array of alternatives. <u>https://www.bbc.com/future/article/20240319-the-most-sustainable-alternatives-to-lithium-batteries</u>

Lugo D. 2025 New carbon emissions program emerges as way to help fund Oregon transportation. Statesman Journal

https://www.statesmanjournal.com/story/news/politics/2025/05/22/cap-and-trade-emergesas-funding-source-oregon-department-transportation/83657378007/

Olguz S. 2023 Life Cycle Emissions: EVs vs. Combustion Engine Vehicles Visual Capitalist https://www.visualcapitalist.com/life-cycle-emissions-evs-vs-combustion-enginevehicles/#google\_vignette

OLIS 2025 2025 Regular Session HB 2945. Oregon Legislative Information System. <u>https://olis.oregonlegislature.gov/liz/2025R1/Measures/Overview/HB2945</u>

Richels R, Jacoby H, Santer B, Yohe G. 2023 Don't let the Heritage Foundation's denialism 'Mandate' drive our climate agenda. The Hill <u>https://thehill.com/opinion/energy-</u><u>environment/4336135-dont-let-the-heritage-foundations-denialism-mandate-drive-our-climate-agenda/</u>

Spiller B & Kannan S. 2024 There's a Better Way to Mine for Electric Vehicle Batteries. Resources <u>https://www.resources.org/common-resources/theres-a-better-way-to-mine-for-electric-vehicle-batteries/</u>

Tyrrell J. 2022 We can't mine our way out of this: the EV battery conundrum. T\_HQ <u>https://techhq.com/2022/07/addressing-ev-battery-supply-chain-constraints/</u>

USGS 2025 USGS National Climate Change Viewer. United States Geological Survey. https://apps.usgs.gov/nccv/loca2/nccv2\_loca2\_counties.html VanderHart D. 2025 Oregon Democrats prepare to release major transportation funding bill. Oregon Public Broadcasting <u>https://www.opb.org/article/2025/06/06/transportation-funding-oregon-bill/</u>

Verma S, Dwivedi G, Verma P. 2022 Life cycle assessment of electric vehicles in comparison to combustion engine vehicles: A review. Science Direct; Materialstoday: Proceedings <a href="https://www.sciencedirect.com/science/article/abs/pii/S221478532100763X">https://www.sciencedirect.com/science/article/abs/pii/S221478532100763X</a>

Waldman P. 2024 Climate Denial the Heritage Foundation Way. Heatmap <u>https://heatmap.news/politics/project-2025-climate-week#</u>

Wankhede C 2025 7 alternatives to lithium-ion batteries: What's the future of energy storage? Ford

https://r.search.yahoo.com/ ylt=AwrO8PUucUtoYB0GHhgPxQt.; ylu=Y29sbwNncTEEcG9zAzEE dnRpZANEMjg3NTlUNV8xBHNIYwNzcg--

/RV=2/RE=1749803439/RO=10/RU=https%3a%2f%2fwww.androidauthority.com%2flithiumion-battery-alternatives-3356834%2f/RK=2/RS=4UFzdw4L6Y9oAGyKgoke7g7HNsM-

WEF 2018 The electrification of transport could transform our future – if we are prepared for it. World Economic Forum. <u>https://www.weforum.org/stories/2018/08/we-must-get-it-right-with-electric-vehicles-for-the-sake-of-our-planet/</u>

WWF undated What is the sixth mass extinction and what can we do about it? World Wildlife Fund.

https://r.search.yahoo.com/ ylt=AwrO.42KbEto2rYF.WoPxQt.; ylu=Y29sbwNncTEEcG9zAzEEdn RpZANEMjg3NTlUNV8xBHNIYwNzcg--

/RV=2/RE=1749802251/RO=10/RU=https%3a%2f%2fwww.worldwildlife.org%2fstories%2fwhatis-the-sixth-mass-extinction-and-what-can-we-do-about-

it/RK=2/RS=uC97ni4qJjSkQwnT2pC5rjGnI A-

Whittaker R. 1975 Communities and Ecosystems [2<sup>nd</sup> edition]. Macmillan Publishing Co (New York).