Draft testimony for CEJ hearing 190301

Thank you for this opportunity to speak. My name is Eric Strid. I'm a retired high-tech CEO, now working for our children.

I have broadly studied the externalized costs of fossil fuel emissions in the US and globally; the cost trajectories of clean energy solutions; and policy options at the local, state, and national levels.

We can't negotiate with physics, and the physics now dictates reductions of emissions significantly faster than this bill causes or even aspires to. Here's an <u>appropriate suite</u> of state emission policies:

- 1. Steer purchases of new vehicles to the best fuel efficiencies, through an up-front fee for unnecessary lifetime emissions;
- 2. Require permits for new construction to fund upgrades to renewable electricity and gas to power the building for 30 years;
- 3. 100% RPS policies for electricity and for natural gas;
- 4. Ban all new major fossil-fuel infrastructure;
- 5. Expand ETO's role in energy efficiencies; and
- 6. Fund green bonds or equivalents, plus R&D tax credits, to help businesses invest in clean processes or infrastructure.

The first policy accelerates the forthcoming electric vehicle transition, our biggest opportunity to rapidly cut <u>climate</u> emissions—and also cut our largest <u>toxic</u> emissions, and the attendant <u>health-related costs</u>, and also cut <u>operating costs</u> by more than half, plus other benefits to the grid.

For vehicle emissions, this bill should be amended to be more effective and less regressive. We should clean up our vehicle fleet through fees on new, inefficient vehicles instead of regressive fees on fuels.

Affluent buyers lock in the lifetime emissions of each new car or truck. For emissions higher than necessary, they should pay to pollute.

Such vehicle fees clearly work. Half of the new vehicles sold in Norway are electric, because they heavily tax lifetime emissions.

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An Oregon policy could expand the existing federal Gas Guzzler Tax to cover all light vehicles. The fee schedule could adapt as zero-emission models become available in every vehicle type, maintaining zero fees for the best model in each vehicle size.

Instead of upsetting everyone with fuel fees, a fee on inefficient new vehicles would only upset those who are both affluent enough to buy new vehicles and indignant enough to complain about paying for unnecessary pollution they lock in.

We've created a serious climate emergency. We should act like it. Thank you!

Date: March 8, 2019

To: Joint Interim Committee on Carbon Reduction 900 Court Street NE Salem, Oregon 97301 jccr.exhibits@oregonlegislature.gov

Re: Proposed transportation sector amendment for HB 2020

A. Thank you for including this process of collecting public inputs on HB 2020.

I attended and testified at the HB 2020 hearing in The Dalles on March 1. I thought it stimulated a good cross-section of urban and rural opinions, pro and con. I was pleased by the nearly complete absence of climate deniers--Oregonians know and feel the need to address our climate problem. The debate was over what policies work.

There were many agriculture-related businesses noting that the extra costs--mostly fuel costs-would make a significant difference on their slim and somewhat unpredictable margins. Some processors say the fees would be a factor in deciding to move to Washington or Idaho.

How does a fuel fee reduce emissions when the fuel efficiency is set by the available vehicles, which are already used very frugally?

My testimony noted policies that are much more effective and less regressive than a highly unpopular tax on fuels.

B. We need to reduce emissions significantly, quickly, and effectively.

The central and most important objective of this bill is to reduce climate emissions. Ivory-tower economists tell us that we just need to tax current emissions and the invisible hand of the market will cut emissions. Obviously, these economists have never run a farm, a food processing business, or a machine shop, because they would have proposed a different solution.

To reduce greenhouse gas (GHG) emissions, we don't need to raise hundreds of millions of dollars for multiple commissions to spend. To reduce GHG emissions at a rate recommended by the IPCC, we will need to:

- Clean up our electricity supplies, and SB 1547 was a big step in the right direction.
- Insulate 100,000 houses in Portland, which the Portland Clean Energy Fund will be addressing.
- Ban all major new fossil-fuel infrastructure in Oregon, as Portland has done.
- Update the OPUC charter to include decarbonization along with least-cost, least-risk guidelines, and apply that to natural gas and to transportation.
- Plus many other sector-specific actions.

And we will need to replace Oregon's four million gas and diesel vehicles. At \$35,000 per average vehicle, that's around \$140 billion, or about 120 years of a \$0.50 per gallon fuel tax. How absurd is that?

The reality is that the average lifetime of our four million vehicles ranges from about 7 to 15 years, depending on the type of vehicle. About 170,000 new light vehicles are sold in Oregon annually, and nearly all of the existing vehicles will be replaced over the next 25 years, simply because they wear out. The leverage point is steering new vehicle purchases to clean vehicles, similar to steering utilities to add only renewable energy sources through an RPS policy.

A fuel tax can shift a few more commuters to ride a bicycle or take transit, but our built infrastructure is simply too spread out for a fuel fee to significantly affect our vehicle emissions.

Transportation is Oregon's largest emissions sector, and gasoline and diesel vehicles are the physical root cause. Fees on fuel for all the vehicles in Oregon address four million symptoms of the root cause, which is that we welcome any gas guzzler into the fleet daily. There's no evidence that a politically acceptable price on current emissions has directly caused significant vehicle emission reductions. The fee is far too low to steer affluent, new-vehicle buyers because they consider only two or three years of operating expenses. And giving rebates to well-heeled consumers to buy more efficient vehicles is highly regressive.

State policies should address this root cause by steering purchases of new vehicles toward zero emissions. Oregon can't ban fossil-fueled vehicles, although it can charge for vehicle pollution. Fortunately, the cost-performance of electric vehicles (EVs) is improving rapidly, and their adoption can be accelerated.

C. We should charge fees on inefficient new vehicles instead of fees on fuels.

Evidence indicates that the bill could be improved by adopting a far more effective and less regressive transportation emissions policy, that steers new vehicle purchases.

Fees on inefficient new vehicles clearly work. Norway's main vehicle emissions policy is a heavy tax on lifetime vehicle emissions, such as \$30,000 for big new BMW. In 2018, 49% of new light vehicles sold in Norway were EVs; that compares to California at 9% with all of their EV policies and about 2% across the US and globally. \$30,000 up front steers new purchases dramatically better than 20 cents a gallon in the future.

We already have such vehicle fees--since 1991, the federal Gas Guzzler Tax has been effectively charging about \$110 per ton for the lifetime GHG emissions of cars with fuel efficiencies worse than a threshold of 25 MPG.

HB 2020 should be amended to exempt vehicle fuels and add a lifetime emissions fee on new vehicles. This could for example expand the federal coverage to all light vehicles—our supersized SUVs, pickups, and vans worse than 25 MPG. Higher fee rates and thresholds could phase in as affordable EV options become available in each class—with no penalties for buying the best efficiency available. Vehicle fees would accrue to the State Highway Fund, thus offsetting other social costs.

The initial buyer locks in a vehicle's emissions. Instead of hitting everyone with fuel fees, a fee on new inefficient vehicles would upset only those who are both affluent enough to buy new vehicles and indignant enough to complain about paying for unnecessary pollution they lock in.

D. Reducing climate emissions has multiple co-benefits.

Accelerating the imminent EV transition is our biggest opportunity to rapidly cut climate emissions. Co-benefits include cutting our largest toxic emissions (and thus significant health-related costs), cutting fuel and maintenance costs by more than half, and benefiting the electric grid in several ways.

Thank you for your consideration of this critical need.

Eric Strid

Cofounder and retired CEO, Cascade Microtech, Beaverton Advisory Board, Green Energy Institute Baseline Subcommittee leader, Hood River County Energy Plan Co-convener, Columbia Gorge Climate Action Network