HB 2020 February 2019

Thank you for this opportunity to provide comments regarding HB 2020. My name is David Slawson; I live in West Linn, Oregon. I have owned the East West College of the Healing Arts since 1981. Additionally, I forged a career in solar energy and signed the worlds' largest solar contracts in the history of mankind worth 5.8 billion. From my personal experiences, I am well aware of the benefits that renewable energy and a holistic approach to healthcare can provide. As well as the health and environmental benefits gained from organic farming.

My purpose in commenting on HB 2020 is as a concerned citizen. I have no business or economic interest to gain from any outcome of HB 2020. What concerns me today is beyond political party affiliation or economic interests of a particular stakeholder. It is clear that HB 2020 is not a condemnation or an effort to try and make some company wrong or call out a bad actor. It's not against a particular political group, Energy Company, landowner, farmers or frankly against anyone! HB 2020 is about a genuine concern for our lives and our way of life that is now in peril. Given the harmful effects from burning fossil fuels, we must transition as quickly as possible to existing clean energy solutions. All stakeholders should do their very best to make this happen.

HB 2020 benefits the health and well being of everyone in our communities with no one left out. The right kind of action is required if we wish to avoid some kind of disastrous life. Given the fact that we are only here for a brief period of time we must act responsibly to restore our natural environment for the well-being of future generations. We must be conscious of our life and sensitive to the nature around us. We are not separate from the natural world but rather we are part of it. We are all part of a single family with the same needs and aspirations. Take a deep breath and you will quickly be reminded that we all breathe the same air and source our water and food in a similar way.

Civilizations have collapsed in the past and today we have now for the first time an entire global civilization moving toward collapse. Our human family has exceeded the sustainability of the earth by over 40%. (Source: International Council on Climate

Change). Everywhere we are seeing living proof of extreme weather disasters, droughts, floods, fires, lack of water to drink and water to grow food. Super storm Sandy, hurricanes, Irma, Rita, Katrina and Harvey are the blow back consequences driven by excess carbon in the atmosphere. Humanity has altered the jet streams, rainfall patterns and created such weather anomalies as Sky Rivers, as witnessed during Hurricane Harvey. During Hurricane Harvey 33 Trillion gallons of water, the equivalent amount of water that flows over Niagara Falls in a ten-month period covered 600,000 square miles with water five feet deep in just five days. (Source: Washington Post Article). Millions of people have become disaster refugees fleeing their homes due to the effects of our carbon dumping.

Environmental degradation is happening in tandem with all life in the natural world around us, whether it's microorganisms, worms, plant life, trees, insects, birds **or** animals. It is estimated that if we kill off all of the insect life on the planet we will have just 18 months to survive. Our very survival is dependent on us working collectively to solve these most pressing problems. Keep in mind nature is not separate from us **-** we are part of nature. What we do to the environment, we do to ourselves.

A few years ago, I was not able to focus well and felt like something was physically wrong. Being concerned, I set up an appointment with my Naturopathic doctor and had blood tests taken. A few days later the doctor called me in to discuss the lab results. He told me my blood tests showed elevated levels of mercury and arsenic. He and I concluded that the mercury source must be from eating fish. According to the Oregon Environmental council there are currently fish consumption advisories for 12 bodies of water, including the entire main stem of the Willamette River, due to mercury contamination.

When mercury is ingested it escapes the intestinal lining and enters the blood stream ending up in the brain. Mercury in the brain can cause autism; dementia, Alzheimer's, and can lower a person's IQ. Scientific America has reported that many infants are born with over 200 chemicals in their blood stream. A teaspoon of mercury is enough mercury to contaminate a 25-acre lake. Babies have a right to start their lives out healthy without their immune systems being compromised? Or even worse have a birth defect? It is

upsetting to know that our government agencies are not doing more to protect the public health from the extreme weather conditions and chemical pollutants in our drinking water and the environment at large. Today 150 million Americans are exposed to hazardous toxins and 117 million Americans have chronic illnesses.

I support HB 2020 because we need to make a course correction with everyone pulling together. The market based compliant mechanisms are fair and equitable. Penalty triggers for enforcement are in place. The disadvantaged low income and unemployed communities, households and Native Americans can be supported equitably through HB 2020 from its revenue yields, job creation and other benefits.

Below Are My Comments and Recommendations Regarding HB 2020.

I. Cost of Externalities: Comments

An externality is a discrepancy between societal costs and private costs.

It appears the major objection against HB 2020 is the notion that it will raise the cost of energy prices for certain people. The truth is energy prices will go down based on the principles of supply and demand. The lower the demand, the lower the prices because of greater supply. The other cost savings associated with HB 2020 is based on the unaccounted externality costs not stated in fuel and energy purchase pricing.

Because of this market failure carbon dioxide and other pollution results in a number of additional costs effectively being subsidized by society at large. Attributable externality costs such as personal health impacts, asthma, heart disease, cancer, cardiovascular diseases, birth defects, lead and mercury poisoning, cognitive impairment, lower IQ, neurobehavioral problems, disability, property damage, and reductions in the productivity of our ecosystems are not included in the product costs. In the end consumers pay these hidden costs in loss of life, higher insurance premiums, lost wages, compromised health, and unwanted and preventable expenditures of our tax dollars.

According to the Oregon Environmental Council, best estimates of total costs of environmentally attributable adult and childhood diseases and disabilities in the state of Oregon is around \$1.60 billion per year. According to (Source: Oregon Environmental Council, OEC). Asthma prevalence in Oregon continues to rise and is considerably higher than the U.S. average. The OEC report did not estimate the emotional and personal tolls that these diseases have on Oregonians and their families. The effect of this is that profits from environmental damage are privatized, but losses are paid for by all of us. With a clean energy economy none of these added costs and health concerns would exist.

It is important to note that clean renewable energy is at grid pricing parity, which is costing less than any fossil fuel source in the market. This is without any externality cost burdens like an estimated additional \$12.00 dollars more on a gallon of gas and a couple of bucks per kilowatt additional cost for fossil fuel power generation that we all pay one way or another.

So why is this bill good for the fossil fuels industries in Oregon? The world is moving toward de-carbonization of the entire energy generation and transportation system. HB 2020 helps these industries transition to the newly emerging clean energy economy on a gradual time frame, avoiding the crash and burn scenarios with billions of dollars lost in the form of stranded assets. Ergo the cap and trade pricing structure that is the core of HB 2020 is needed to make a market correction gradually. It will also encourage dirty energy industries to invest their capital in clean energy options.

II. HB 2020 Soil Carbon Sink Through Organic Farming: Recommendation

"When it comes to mitigating the worst impacts of climate change, keeping excess carbon out of the atmosphere is the prime target for improving the health of our planet. One of the best ways is to sequester more carbon into the soil that grows our food". (Source Northeastern University & The Organic Center (TOC).

"Soil under organic management can absorb about 453kg of carbon per acre-foot of soil each year. This is equivalent to 1580kg of carbon dioxide per acre sequestered into the

soil. Organic farming methods are a solution to climate change because vibrant soils can absorb more carbon than the atmosphere and the oceans".

Currently there are 900 organic farms successfully operating in Oregon. The knowledge and experience exists to assist all conventional farming operations to go organic within three years. Healthy soils will absorb carbon and we can reduce known health risks associated with the use of pesticides. We can avoid migration spraying that is contaminating organic farming operations. We can also avoid the misuse, over use and collateral damages by aero chemical spraying and the associated carbon emissions.

It has been known for some time that conventional methods of farming are adding to the problems of climate change. A study of 700 organic farms across 48 states showed that organic farms have a 26% greater ability for long term carbon storage over conventional farming. (Source Northeastern University & The Organic Center (TOC). Now is the time to include a provision in HB 2020 requiring conventional farming operations to be part of the solution by converting to organic farming principles and methods? HB 2020 can include a provision that will provide the education and financial assistance to make this transition possible. The funds would come from an adjusted price increase from \$16.00 per ton of carbon to \$20.00.

Organics are good for you and are more nutritious. Better nutrition in our food can reduce obesity. And we can reduce or avoid known health risks from conventional chemical farming that include cancer, birth defects, asthma, allergies, genetic damage, liver and kidney damage, chronic fatigue, depression, nervous system disorders, eye damage and skin irritations. Organic farming can reduce carbon emissions going into the atmosphere and absorb existing carbon into the organic soils.

III. Expand Benefit Scope Under Weatherization: Recommendation.

The additional benefit for those families in high impact areas as described in HB 2020 would be welcomed. HB 2020 could include the replacement of old single pane windows, old carbon burning heating systems, inefficient lighting as well as all inefficient household appliances. This will provide the homeowner or renter a better quality of life,

will reduce their carbon footprint and lower their energy bills. It will create more jobs in manufacturing and home energy retrofits businesses, thereby creating considerable economic benefit to our rural communities in Eastern, Southern and Coastal Communities where support is needed the most. The funds would come from an adjusted price increase per ton on carbon to \$20.00.

IV. Transportation Sector Carbon Emission Cap: End the sale of Internal Combustion Engines by 2025. Recommendation

One goal of HB 2020 is to reduce carbon emissions and meet or exceed reduction targets. It is a known fact that the Oregon transportation sector contributes one quarter of all carbon pollution in the state and is responsible for the majority of public health illnesses due to the burning of fossil fuels. (Source: Oregon Environmental Council Report). Therefore, Oregon should follow Europe, China and India's mandate to ban the sale of cars and trucks with internal combustion engines. The benefit to Oregon is that new electric trucks, SUV's and cars would no longer emit carbon beginning in 2025.

The Volkswagen company has committed \$91 billion to manufacturer its entire fleet of vehicles to all be electric by 2025. In 2020 there will be over forty brands of electric cars on the market priced as low as \$10,000 to over \$100,000. Consumers will have a host of auto purchase options with better performance, lower maintenance expenses, and a cheaper cost per mile. There is no cost to consider by adding a provision in HB 2020. A simple statement could be added such as "In an effort to meet the State's carbon emission reduction goals, no internal combustion engines can be sold in Oregon after 2025 (construction and farming machinery excluded). This bold step forward will alleviate a large carbon contributor and will send the right signal to the auto industry that we support their transition to an all-electric transportation system. If Oregon leads on this issue other states will follow. This would have no impact on the current fleet of internal combustion engine transportation vehicles.

Winston Churchill once stated, "The era of procrastination of halfmeasures of soothing and baffling expedience of delays is coming to its close. In its place we are entering a period of consequences".

Needless to say bold action is now required. HB 2020 is an intelligent, wise and good piece of legislation that will benefit all Oregonians, its financial stakeholders and the world at large. In my opinion it would be better legislation with the additions mentioned above.

Common Sense, stated, "Our vision for Oregon includes solving global warming, protecting kids from toxins, cleaning up our rivers, building sustainable economies, and ensuring healthy food and local farms".

It is time to stop pitting a person's employment and livelihood needs against their family's good health. It is time to provide jobs that promote a clean economy. It is time to work with nature rather than dominate it.

Respectfully submitted,

David Slawson