I'm a bio-chemistry PhD candidate, close to graduation. As a scientist, I'm immersed in using the scientific method to identify issues and logically work toward a solution. In this light, I have also been a keen observer of how in the science has been applied to the topic of Climate Change.

Earth's climatic history shows frequent change

Over the past 600 million years, the earth has oscillated between very warm "hothouse" conditions, over 27F warmer than today, and much colder "icehouse" conditions, 18F colder than today. For the last 800,000 years, the earth has primarily been in an ice age more than 85% of the time, with glaciers hundreds of meters thick, covering most of the earth's land mass. These ice ages lasted 75,000 to 125,000 years, interrupted by inter-glacial warming periods, up to 18°F warmer, lasting 10,000 to 15,000 years. These glacial-interglacial cycles were controlled by changes in the Earth's tilt and the shape of its orbit that occur in predictable cycles. The eccentricity of the Earth's elliptical orbit (i.e. how far the shape of the orbit differs from a perfect circle) varies in 100,000 year cycles. The tilt of obliquity of the Earth's axis varies in 41,000 year cycles. The Earth also wobbles on a 26,000-year cycle that causes a phenomenon known as the "precession of the equinoxes", Collectively these three cycles are known as the Milankovich cycles, after the self-taught university janitor who discovered them. (1)

The combination of these three cycles caused not only the glacial & inter-glacial periods, but also significant intermediate temperature variation of erratic duration within each period. For example, we are now about 10,000 years into the current interglacial period, and these solar cycles caused climate variation, such as the Roman Warm Period, the Medieval Warm Period, the Little Ice Age, and others, and still continue to affect the level of solar irradiation, the greenhouse effect, and climate $_{(2)}$ There is no reason to believe that these solar irradiation and these solar cycles will not continue to be the primary determinant of the earth's climate today and in the future.

The IPCC has yet to fully address solar's effect on climate

The IPCC (Intergovernmental Panel on Climate Change) is a branch of the UN, whose members have strong <u>political</u> opinions on how fossil fuel use (i.e. man-caused carbon emissions) should be curbed in the most developed nations, so less developed nations can catch-up and gain political power. The IPCC has violated long-held scientific practice of full and accurate representation of the current state of scientific knowledge Instead, the IPCC has acted out of prejudice to mislead both politicians and the public, by numerous and grievous errors which minimize the the role of the sun and thereby support IPCC's unsupportable claim that the most of the 0.7°C global warming since 1950 was manmade. Many of the climatologist and meteorologists outside of IPCC's funding circle openly challenge IPCC's assertion that the sun has little influence on climate, as contrary to all evidence, They say the IPCC has also;

- -misled discussion of sun's radiative forcing,
- -concealed problems in determining solar irradiance,
- -cherry-picked the total solar irradiance dataset,
- -failed to cite Soon & Legates sun-climate connection paper (2) which disconfirms the role of atmospheric CO₂ for climate change.
- -misrepresented Livingston and Penn (3, which predicted diminished sun spots and solar energy output, which are suspected to cause the recent flat trend in global temperature.
- -configure climate models on the assumption that man-caused CO2 has a 51% or chance of being the primary determinant of climate.

While we have been in a gradual warming trend of 0.7°C for the last 300 years, IPCC models have grossly overstated future temperatures by up to 3x this trend. However, this has not stopped those with a strong political agenda from corrupting the climatic sciences and repeatedly publicizing a future of out-of-control temperature and climatic event.

I don't buy that man-made CO₂ is the primary climate driver

 CO_2 is an essential part of all life cycles and due to natural forces, it's concentration in the atmospheric has varied from 182 to over 8000 ppm over the past 800,000 years, with none of this variation due to fossil fuel combustion and there was no correlation between CO_2 and temperature. CO_2 levels hit an all time low of 182ppm at the end of the last ice age 11,000 years ago and then natural effects caused it to gradually rise to about 310ppm at the end of WVII, and since then, natural effects along with man-caused CO_2 have risen to about 410ppm today. There is no direct correlation between temperature and CO_2 , as evidence by the fact that CO_2 rose after WVII, but temperature fell, and CO_2 continued to rise between 1998 and 2016, when average temperature remained flat. Even if it was shown that CO_2 did have some influence on climate, but since man-made CO_2 is also only 4% of the total CO_2 in the atmosphere, natural-sourced CO_2 would have a far greater effect than man-sourced. One thing is certain; that during these (and all other periods), the sun continued to be the primary determinant of global temperature and there is no evidence that its effect on climate had been surpassed by CO₂ level.

There's no 97% consensus of scientists

In the ideal world, politics should not interfere with science, however since funding, and thus politicians who provide it, are involved, climate science has been deliberately corrupted to provide results that support a desired political outcome. Thousands of dedicated scientist do not agree with IPCC's methods, date omission, and model assumptions, yet progressive-oriented members of the media almost exclusively cover IPCC reports, which unabashedly support the agendas of certain UN member nations.

What Will SB1530 Cost?

I'm not an engineer, but talking to an environmental engineer who is an expert with the cost of large-scale programs, I understand that the added cost of the Green New Deal (which is similar to SB1530) very over the next 30 years will be over \$300,000 per Oregonian (2020 dollars), which is a staggering sum. How can I possibly pay off college, start a family, buy a house, and also repay \$300,000 for every family member? Since this is out of the realm of possibility of paying, every Oregonian will have to go deep in debt, with no chance of ever paying this back. It's pretty obvious that the American Dream will be way out of reach for me, and that the cost of goods and services will rise even faster than in the past, and that there will be minimal chance of any economic growth. I think the biggest impact will be on our current quality of life, as I see no way that I will be able to; fly, go on vacation more than a few miles from home, travel to enhance my career, buy a house and make it a home, have a vehicle other than an E-car, enjoy meat, visit my friends, or have the freedom to do what I want. This is not a very bright future to look forward to.

What will SB 1350 give us?

This bill is built on a false premise and even if we pay the proposed carbon tax, as well as the many other added costs for; electric vehicles, public recharging stations, convert all building heat from gas to electric, upgrade the insulation in buildings, upgrade the entire electrical grid, and the higher cost of all goods and services, it will result in no appreciable global carbon emission reduction. Reasonably priced fossil fuels form the backbone of our entire economy and so getting rid of the very thing that has enabled out lifestyle, means that we are going to have to get rid of a lot of the conveniences and standard of living that we've probably taken for advantage.

There is substantial doubt in the scientific community that man caused very much climate change, and as such, changing our life style and activity to the extent required of SB1350 can do nothing to undo it.

Isn't there another option?

While SB1350 seems to be nothing more than a money grab that will do nothing to actually reduce carbon levels or help the environment.

Oregon has the worlds greatest forests, which are the best carbon sequestering process available. I understand that if their enormous carbon sequestration potential was recognized, Oregon could become carbon-neutral for about 1/4 or less of the cost of trying to reach the arbitrary goal of an 80% reduction in SB1350.

Please vote no on SB1350 Please refer this measure to the voters.

10/202

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References;

- 1) <u>EPICA Dome C Ice Core 800K Yr Deuterium Data and Temperature Estimates</u>, Jouzel J, et al, World Data Center for Paleoclimatology Data Contribution Series 091, 2007
- Solar Irradiance modulation of Equator-to-pole Temperature Gradients, Soon & Legates, Journal of Atmospheric and Solar Terrestrial Physics, 2013
- 3) Are Sunspots Different During This Solar Minimum?, Livingston & Penn, American Geophysical Union, 2009