

## SUMMARY OF FLAWS IN SENATE BILL 5802

Senate bill 5802 is based on six, very badly flawed, fundamental assertions that are contrary to well established scientific data. Each of these assertions is listed below with conclusive scientific evidence that they are not valid.

### **1. Emissions of greenhouse gases from human activities is the principal cause of climate change**

- There is NO physical evidence that  $CO_2$  causes significant global warming.
- This conclusion is based entirely on computer models, which have proven to be totally inaccurate when comparison with actual measured observations.
- $CO_2$  makes up only 0.039% of the atmosphere and has increased by only 0.008% since  $CO_2$  emissions began to escalate after 1945.  $CO_2$  is responsible for only 3.6% of greenhouse gas warming and the miniscule amount of  $CO_2$  is incapable of causing significant global warming by itself.
- Computer climate models assume that water vapor, which is responsible for 95% of greenhouse gas warming, will rise as  $CO_2$  rises, but atmospheric water vapor has actually declined since 1947.
- NO correlation exists between  $CO_2$  and temperature in the geologic record.
- Despite IPCC predictions in 2000 of global warming of 1°F per decade and 10°F by 2100, there has been NO global warming in 15 years. Modern global warming ended in 1998 and global cooling has occurred since then.
- US winters have cooled 2-8°F during the past decade.
- Temperatures today are not at all-time highs. Most warm temperature records in the past century were set in the 1930s BEFORE escalation of  $CO_2$  after 1945.
- Winters for the past five years have been bitterly cold in Europe, Asia, and North America. This winter in Europe has been the coldest in 100 years.
- Geologic records show that natural global warming and cooling has been going on for thousands of years, long before  $CO_2$  could possibly have been a factor.
  - 20 periods of natural global warming have occurred since 1500 AD.
  - Almost all of the past 10,000 years have been warmer than present.
  - Multiple periods of global warming 20 times more intense than recent warming have occurred.
- The Antarctic ice sheet is growing, not melting.
- Two periods of global warming have occurred in the past century—1915-1945 (before  $CO_2$  began to escalate) and 1978-1998. During the period of soaring emissions (1945-1977), the global climate cooled, rather than warmed as should have been the case if increased  $CO_2$  causes warming.

## 2. Sea level is rising at an increasing rate because of global warming.

- Sea level rose at a constant rate of only 7 inches in the past century as we thawed out from the Little Ice Age. Half of this rise occurred before significant increase in CO<sub>2</sub>.
- The rate of sea level rise has been constant, not accelerating during the past century.
- Sea level in some areas (Alaska, Maldives Is., Neah Bay, Astoria) is lowering, not rising.
- The IPCC large sea level rise predictions are unrealistic because global warming has stopped and the Antarctic ice sheet is growing, not melting.
- Seattle has a 100-year tide gauge record showing a sea level rise of only 7 inches with no correlation at all with increasing CO<sub>2</sub>.
- Projection of the sea level rise over the past century indicates that sea level in the Pacific NW will rise only about 6 inches by 2100.

## 3. The frequency of severe storms is increasing because of global warming.

- The number of U.S. hurricanes has decreased 1851-2010.
- The global hurricane frequency has declined since 1978.
- The number of tornadoes has decreased since 1970s.
- Storms are weather events, not climatic events. Extreme storms happen all the time regardless of what the climate is doing.
- There is no basis for predicting increasing extreme weather

## 4. Reduced winter snow packs and decreased summer streamflows.

- Despite numerous assertions since 1990 that snow will become a thing of the past, just the opposite is happening.
- Five of the top six snowiest winters for the northern hemisphere have occurred since 2002/03.
- Temperatures in 2011 in the Pacific Northwest, were colder than the 30 year mean for the 5th straight year.
- Spring temperatures in the Northwest have been trending downward at a rate of -0.59° F per decade for 30 years.
- Spring temperatures in the Northwest have been trending downward at a rate of -4.10 degrees F per decade the past 10 years.
- The snow pack has been 120-150% of normal in recent yrs.
- Most of Europe is having the coldest/snowiest winter in 100 years
- Global precipitation has increased since 1950.
- Streamflow in the U.S. hasn't decreased in 15 years

**5. Increasing acidification of the state's marine waters.**

- The oceans are alkaline, not acidic.
- The oceans contain 50 times more  $CO_2$  than the atmosphere and control how much  $CO_2$  is in the atmosphere
- The  $CO_2$  content of the atmosphere is only 0.039 % and has increased only 0.008% since human emissions increased after 1945. This miniscule amount is not capable of significantly changing the pH of 300 million cubic miles of sea water and converting it from alkaline to acid.
- Global warming cannot cause the oceans to become acidic because as oceans warm,  $CO_2$  is driven out of the oceans, thus decreasing the pH (i.e., sea water becomes more alkaline, not more acidic)

**6. Produce more electricity from renewable energy while phasing out coal-powered electricity generation.**

- Coal provides 42% of electricity at a cost of \$0.04/kwh—
- Solar provides 0.04% of electricity at >\$0.25/kwh
- $CO_2$  Replacing coal-generated electricity (42%) with solar-generated (0.04%) isn't practical and would increase the cost of electricity by ~500%