Kyoto hot air can't replace fossil fuels

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Many critics of the Kyoto protocol say the science does not back up the accord.

The Kyoto accord on climate change is probably the most poorly crafted piece of legislative incompetence in recent times.

First, the science of climate change, the treaty's fundamental foundation, is not even remotely settled. There is even strong evidence that human activity is not causing serious global warming.

The world has been a lot warmer and cooler in the past, long before we ever started burning fossil fuels. From about 900 to 1300 AD, during the Medieval Warm Period or Medieval Optimum, the Earth was warmer than it is today.

Temperatures are now recovering from the Little Ice Age that occurred from about 1300 to 1900, when the world was significantly cooler. Cold temperatures are known to have caused great misery -- crop failures and starvation were common. Also, Kyoto activists' wild claims of more extreme weather events in response to global warming are simply unsupported by science. Contrary to pro-Kyoto rhetoric, history confirms that human society does far better in warm periods than in cooler times.

Over the past one thousand years, global temperatures exhibited strong correlation with variations in the sun's activity. This warming and cooling was certainly not caused by manmade variations in atmospheric CO2, because fossil fuel use was insignificant until the 20th century.

Temperatures in the 20th century also correlate poorly with atmospheric CO2 levels, which increased throughout the century. However, much of the observed warming in the 20th century occurred before 1940, there was cooling from 1940 to 1975 and more warming after 1975. Since 80 per cent of manmade CO2 was produced after 1940, why did much of the warming occur before that time? Also, why did the cooling occur between 1940 and 1975 while CO2 levels were increasing? Again, these warming and cooling trends correlate well with variations in solar activity.

Only since 1975 does warming correlate with increased CO2, but solar activity also increased during this period. This warming has only been measured at the earth's

surface, and satellites have measured little or no warming at altitudes of 1.5 to eight kilometres. This pattern is inconsistent with CO2 being the primary driver for warming.

If solar activity is the main driver of surface temperature rather than CO2, we should begin the next cooling period by 2020 to 2030.

The last big Ice Age, when Canada was covered by a one-kilometre-thick ice sheet, ended only about 10,000 years ago, and another big one could start at any time in the next 5,000 years. Mankind clearly didn't cause the rise and fall of the last big Ice Age, and we may not have any ability to control the next big one either.

It appears that increased CO2 is only a minor contributor to global warming. Even knowing this is true, some Kyoto advocates have tried to stifle the scientific debate by deliberate misinformation and bullying tactics. They claim to be environmentalists -- why do they suppress the truth about environmental science?

Some environmental groups supporting Kyoto also lack transparency in their funding sources and have serious conflicts of interest. Perhaps they are more interested in extorting funds from a frightened public than they are in revealing the truth.

Do they not know or care that Kyoto will actually hurt the global environment by causing energy-intensive industries to move to developing countries, which are exempt from Kyoto emission limits and do not control even the most harmful forms of pollution?

The Canadian government wants to meet its Kyoto targets by paying billions of dollars a year for CO2 credits to the former Soviet Union. For decades, the former Soviet Union has been the world's greatest waster of energy. Yet it will receive billions in free CO2 credits because of the flawed structure of Kyoto. No possible good can come to the environment by this massive transfer of wealth from Canadians to the former Soviet Union.

Kyoto would be ineffective even if the pro-Kyoto science was correct, reducing projected warming by a mere 0.06 degrees Celsius over the next half-century. Consequently, we would need at least 10 Kyoto's to stop alleged global warming. This would require a virtual elimination of fossil fuels from our energy system. Environment Canada knows this but doesn't really want to tell you all the economic bad news just yet.

What would the economic impact of 10 Kyoto's be? Think in terms of 10 times the devastating impact of the oil crisis of the 1970s (remember high unemployment, stagflation and 20 per cent mortgage rates) or 10 times the impact of Canada's destructive and wasteful National Energy Program. Be prepared for some huge and unpleasant changes in the way you live.

Fossil fuels (oil, natural gas and coal) account for 87 per cent of the world's primary energy consumption, with 13 per cent coming from nuclear and hydroelectricity. Is it possible to replace such an enormous quantity of fossil fuels?

Hydrogen is not an answer -- it is a clean secondary energy currency like electricity, but it is made from primary energy such as fossil fuels, nuclear or hydro.

Kyoto advocates want expanded renewable energy such as geothermal, wind, and solar power and biomass to provide our future needs. Is this possible?

In 2001, there was a total global installed capacity of eight gigawatts (GW) of geothermal power and 25 GW of wind power. Even assuming the wind blows all the time, this equals only one quarter of one per cent of worldwide primary energy consumption. The contribution of solar electrical power generation is so small as to be inconsequential. To replace fossil fuels, we would need to increase all these renewables by a staggering 33,000 per cent.

Of course, wind doesn't blow all the time -- wind power works best as a small part of an electrical distribution system, where other sources provide the base and peak power. Although wind power has made recent gains, it will probably remain a small contributor to our overall energy needs. A 1,000-megawatt wind farm would cover a land area of 1,036 square kilometres, while the same-size surface coal mine and power plant complex covers about 36 square kilometres. Wind farms cover a much bigger area, are visible for miles due to the height of the towers and kill large numbers of birds.

What about solar? The electricity generated by a photovoltaic solar cell in its entire lifetime does not add up to the energy used to manufacture it, not to mention the requirement for vast areas for solar farms. These solar cells make sense only in limited special applications or in remote locations.

Hydroelectric power is another renewable, but environmental activists don't want more hydro because it dams rivers.

What about biomass solutions such as ethanol? Canada, the United States and a few other countries may have available crop land for ethanol to partially meet our local needs, but it is clearly not a global solution.

Many developing countries will reject renewable energy due to higher costs, since renewables usually require subsidies to compete with fossil fuels.

Conventional nuclear fission or, someday, fusion are the only two prospects that could conceivably replace fossil fuels. But Kyoto activists hate nuclear.

Conservation is a good solution, but Canada has been improving its energy efficiency for decades, in response to rising energy prices. Significant improvements have been achieved in heating and insulation of homes, automotive mileage and industrial energy efficiency. However, Canadians live in a cold climate and our country is vast. There are practical limits to what we can achieve through energy conservation.

So where will all the energy come from if we eliminate oil, natural gas and coal? Kyoto supporters have provided no practical answers, they just want to ratify this flawed treaty. It would be nice if our energy supply solutions were simple, but they're not. In the long run, if we implement Kyoto we will have only two choices -- destroy our economy and suffer massive job losses and power blackouts, or break the terms of Kyoto, which will be international law.

Instead of Kyoto, a new global anti-pollution initiative should be drafted by people who have a much better understanding of science, industry and the environment. It should focus, not on global warming and CO2, but on real atmospheric pollutants such as SO2, NOx and particulates as well as pollutants in the water and soil -- and no country should be exempt.

Then there might be a chance to actually improve the environment, rather than making it worse and wasting billions on the fatally flawed Kyoto accord.

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