

FOS MEMBERSHIP QUARTERLY NEWSLETTER
No. 49

“FoS is dedicated to providing the public with insight into Climate Science”

PRESIDENT’S MESSAGE

Your Friends of Science Society (“FoS”), of which each of you is one of 350 members (and increasing), is approaching an important turning point. We are reaching an ever increasing audience and causing citizens and tax payers to question the message which they are fed by the main stream media that man-made atmospheric CO₂ is the primary cause of catastrophic global climate change. As the warmists (or alarmists, or whatever they wish to be called) desperately try to maintain the illusion that CO₂ is the control knob of climate change FoS is gathering an ever increasing audience of people with common sense and critical thinking ability who reject the misinformation and abuse of science. **That’s the good news.**

Unfortunately, FoS, which has been led by a small group of dedicated volunteer directors and a staff of two part time incredibly effective individuals, our Office Manager and Communications Manager are tapped out and overcome by the opportunities which they are faced with. The number of FoS research papers, videos, and press releases which counter the climate change propaganda has greatly increased to the point that additional assistance and involvement is required. The purveyors of misinformation and abusers of science are up against the wall and fighting desperately to install their agenda – now is not the time to lose our momentum. The very small group of currently involved individuals cannot succeed in the mandate which you support without your increased commitment and participation. **We need your help.**

FoS is at the point of suffering from the overwhelming opportunities of the immediate (tyranny of the immediate). It is critically important that we effectively organize and move our organization to the next level to win the opinion of the general public, taxpayers and rate payers. **Now is not the time to falter.**

The intention of FoS is to encourage the members of our organization to become more involved, to commit their time and resources to win this important battle of truth overcoming misinformation. We intend on organizing committees which can enhance and improve the advances which have been made thus far. Please consider and ask us how you could contribute in this incredibly important objective. **We greatly desire (indeed, require) your involvement in a way suitable to your desires and your strengths.**

Below are some obvious, but by no means exhaustive, roles where your participation would be very valuable;

- social media
- letter writing
 - letters to the editor
 - letters to MPs, MLAs, government ministers
 - letters to industry and associations
- proof reading of reports and press releases (editors)
- Meetup group participation and facilitation
- speakers and presenters
- fund raisers
- event planning and logistics
- legal advisors

Please call us at 1-888-789-9597 or send an email to contact@friendsofscience.org enquiring as to your interest in being a part of winning this most important battle of the 21st century.

Warren Blair
President, Friends of Science

POLITICAL DEVELOPMENTS

Meeting Canada's Climate Commitments – The Vancouver Declaration

Leading up to the Paris climate conference, the Canadian government resisted efforts by climate change groups and the media to lay out its emissions targets and timelines for achieving them. At COP 21 Prime Minister Justin Trudeau indicated support for carbon pricing and promised to [convene a meeting](#) with provincial and territorial leaders within 90 days of the conference wrap-up, in order to determine the “how” of achieving Canada’s emissions targets. That meeting took place March 2 and 3 in Vancouver.

The outcome of the meeting was the [Vancouver Declaration on Clean Growth and Climate Change](#). The Declaration begins with five aspirational goals and related commitments by the First Ministers:

1. Increase the Level of Ambition.
2. Promote Clean Economic Growth to Create Jobs.
3. Deliver Mitigation Actions.
4. Increase Action on Adaptation and Climate Resilience.
5. Enhance Cooperation.

Commitment No. 1 recognizes the goals of the Paris Agreement and commits to implementing greenhouse gas mitigation policies to meet or exceed Canada’s 2030 target of 30% reduction below 2005 levels, increasing the level of ambition over time and coordinating reporting on progress. No. 2 tries to reconcile deep cuts in GHG emissions with economic growth and long-term job creation. No. 3 commits to transition to a low carbon economy, including use of carbon pricing mechanisms adapted to each province's and territories specific circumstances. No. 4 commits to implementing policies to address climate risks and support disaster mitigation. No. 5 is the collaboration commitment – within Canada, with the US and Mexico, international engagement, and includes improving “public climate literacy.”

After the five commitments comes the important part: Taking Action. Here, there are six parts:

1. Early actions by the Government of Canada. (i.e., more subsidies to green rent seekers.)
2. Creating four working groups to report by September 2016:
 - a. Clean technology, innovation and jobs
 - b. Carbon pricing mechanisms
 - c. Specific mitigation opportunities
 - d. Adaptation and climate resilience
3. Working together on energy efficiency and clean energy technology and innovation.
4. Engaging indigenous peoples in the development of a pan-Canadian framework on clean growth and climate change.
5. Engaging the public in the development of a pan-Canadian framework on clean growth and climate change. (This one envisages online tools to solicit input and “increase climate change awareness and literacy.”)
6. First Ministers to meet again in the fall of 2016 to finalize the pan-Canadian framework.

Reaction to the Vancouver Declaration came swiftly. The *Globe and Mail* [noted](#) that it is long on principles, short on specifics, and the *National Post* [observed](#) that everyone appeared to get something of what they wanted. In particular, there is no definition of carbon pricing – that’s left up to the second working group. Thus, Saskatchewan’s Brad Wall – the most vocal opponent of carbon taxation – was able to claim that his province’s carbon capture and storage technology constitutes carbon pricing. And Nova Scotia’s Stephen McNeil [claimed](#) that the exorbitantly priced hydroelectricity that his province buys from Newfoundland is carbon pricing. However, both papers refer to the threat that the federal government [will impose](#) a national carbon tax if the provincial and territorial premiers fail to agree.

In short, “how” Canada is going to cut GHG emissions has been pushed back six months. The [2030 target](#) is 524 Mt, a full 200 Mt below 2013 levels, which means fundamentally restructuring society, and determining how to share the burden among 13 jurisdictions with very different economies and endowments of natural resources.

While we're waiting for the unveiling of the new pan-Canadian framework, expect a new federal campaign to re-educate the (apparently) climate-illiterate public. Climate literacy may be a new concept on the Canadian scene, but it's prevalent in the US among government agencies such as [NOAA](#), and government-academic networks such as the [Climate Literacy Network](#) and the [National Center for Science Education](#).

The US Supreme Court Decision

On October 23, 2015 the US Environmental Protection Agency (EPA) issued its [final rule](#) on a regulation called *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*. This rule is more commonly known as the Obama administration's [Clean Power Plan](#) (CPP), which forces massive cuts in CO₂ emissions from new and existing coal-fired power plants by approximately 32% below 2005 levels on a state-by-state basis. Tables 12 and 13 (pages 64,824–64,825 of the final rule) set out emission performance goals in terms of pounds of CO₂ per MWh and tons of CO₂ for each state. The rule emphasizes “generation shifting” (i.e., replacing coal-fired plants with natural gas combined-cycle or renewables) as a preferred way to reduce emissions.

Immediately a group of 27 states and state agencies filed suit against the CPP. The case is [currently before](#) the US Court of Appeals for the District of Columbia Circuit, where the opponents of the regulation filed a 192-page initial brief stating: “EPA’s audacious assertion of authority in this Rule is more far-reaching than any previous effort by the agency ... If upheld, the rule would lead to a breath-taking expansion of the agency’s authority. The rule’s restructuring of nearly every state’s electric grid would exceed even the authority that Congress gave to the Federal Energy Regulatory Commission, the federal agency responsible for electricity regulation.” A three-judge panel of the appeals court is to hear oral arguments starting June 2, with a decision coming months later.

When the three-judge panel of the DC Circuit Court denied the states’ motion for a stay in implementing the CPP pending the court’s decision, the litigants, led by West Virginia and Texas, applied to the Supreme Court for a stay. In their [55-page brief](#) the litigants state:

- In a previous case (*Michigan v. EPA*) the Supreme Court overturned a rule regulating fossil-fuel power plants (p. 1). However, during the years of litigation a majority of the power plants had complied, and the EPA boasted in an official blog post that the court decision was effectively a nullity.
- Absent a stay the CPP will force, during the lifespan of the litigation, massive, irreversible changes in terms of state policies and resources, power plant shutdowns and investments in wind and solar (p. 5).
- The CPP requires the states to act now and submit their plans or requests of exemptions by September 1 (p. 11). For example, West Virginia (the lead litigant) gets 95% of its electricity from coal plants, yet must reduce CO₂ emissions 26% by 2022 and 37% by 2030. Given the long lead times required for infrastructure projects like generation and transmission capacity, state decisions on compliance with the CPP are being made now.
- If the DC Circuit Court upheld the CPP, it’s likely that the Supreme Court would hear an appeal (p. 14).
- The generation shifting is unprecedented and unlawful (p.15).
- The EPA’s invasion of historic states’ powers is unsupported by a statement of Congressional intent (p. 18).
- The CPP unconstitutionally commandeers and coerces states and their officials into carrying out federal energy policy (p. 23).
- Absent a stay, the states will suffer irreparable harm (p. 39).
- A decision by the DC Circuit Court panel is at least six months away, and with possible rehearing, a final decision could stretch well into 2017 (p. 48).

On February 9, in a 5-4 vote, the Supreme Court [granted](#) the requested stay, something that is unprecedented – never before had the court granted a request to halt a regulation before review by a federal appeals court. The stay will remain in effect until the DC Circuit Court adjudicates the matter. After that, the losing party will doubtless appeal to the Supreme Court for a final resolution, which may drag on into 2018.

Fallout from the Supreme Court ruling [landed quickly](#). Spokesmen for the Obama administration tried to downplay its significance and any effects on the Paris Agreement of last December. However, international Investigating the Science of Global Climate Change

observers fear that the US may be unable to meet its Paris commitments, as it was after the 1997 Kyoto Protocol. In an essay Fred Singer [quotes](#) legal opinion that other nations won't wait 2-5 years for final resolution of the case. During this time Congress will go back and evaluate the science, and we may see the eventual collapse of the climate industry. One thing is certain: President Obama will leave office with his signature foreign policy initiative in doubt.

Ian Cameron
Director, Friends of Science

SCIENCE NEWS

The Economic Impact of Climate Change

The December 2015 Science News included an article about the economic impact of climate change. It provides evidence that climate sensitivity is likely in the range of 0.9 to 1.5 °C for a doubling of CO₂. The FUND integrated assessment model shows that this corresponds to a likely range of the social net benefit of carbon dioxide emissions of 19 to 12 US\$/tCO₂. We issued a report giving further details of this result [here](#).

Trends in Extreme Weather Events since 1900

A paper published in the *Journal of Geography & Natural Disasters* shows that "first half of the 20th century had more extreme weather than the second half". Several graphs of climate data are presented in support of this statement, including warming and cooling rates, temperature extremes, precipitation, and hurricanes making landfall in the USA. Global temperatures during the last few decades have been warmer than the first half of the 20th century. Many theoretical studies predict that a warming climate due to greenhouse gas emissions will produce more extreme weather. The paper states "The lack of public, political and policymaker appreciation of the disconnect between empirical data and theoretical constructs is profoundly worrying, especially in terms of policy advice being given." The hyperbole of predictions of extreme future weather may lead to excessive safety factors and over-adaptation. The author warns, "Over-adaptation that is not needed leaves clients free to sue advisors if the problems have been oversold and the costs of protection prove to have been excessive". The paper is [here](#).

Climate Variations Analyzed 5 Million Years Back in Time - Climate Repeats as Fractals

A paper published in *Nature Communications* finds that the scaling properties of the interglacial and the glacial climates are fundamentally different. The authors analyzed 150 years of instrumental records, 800 thousand years of ice core records and 5 million years of ocean sediment climate records. The Holocene record, which is the current inter-glacial period, is monofractal, while the glacial record is multifractal, with a longer persistence time and stronger nonlinearities. Fractals are repeating pattern that display on many or all scales. The interglacial climate shows scaling over a remarkable range of scales from daily to millennial. The glacial climate is dominated by the strong multi-millennial Dansgaard–Oeschger (DO) events influencing the long-time correlation. DO events are rapid warming over a few decades followed by cooling over a few hundred years. The glacial record also shows a clear multifractal scaling, with an asymmetry between small and large fluctuations. The DO events are a part of the scaling process, indicating that they are part of the internal variability, and not externally caused, in contrast to the glacial cycles, which are forced by the Milankovitch cycles and show trivial scaling. The research shows that not only is the weather chaotic, but the Earth's climate is chaotic and can be difficult to predict. The warming that brought the earth out of the Little Ice Age may be due to D-O events rather than greenhouse gas emissions. The media release is [here](#) and the paper is [here](#).

Correlations of Global Sea Surface Temperatures with the Solar Wind Speed

The IPCC consistently ignores the huge body of evidence that the sun has a large effect on climate. Here we highlight yet another paper that finds a significant correlation between temperatures and the sun. A study published in the *Journal of Atmospheric and Solar-Terrestrial Physics* February 2016 found the North Atlantic sea surface temperature (SST) in winter correlates with the solar wind speed (SWS). The SWS also correlates with the stratospheric quasi-biennial oscillation (QBO). The QBO is a periodic oscillation between easterlies and westerlies in the tropical stratosphere with a period of about 28 months. These winds develop in the lower stratosphere and propagate downward to the tropopause. The abstract [here](#) says, "SST responds to changes in tropospheric dynamics via wind stress, and to changes in cloud cover affecting the radiative balance. Suggested mechanisms for the solar influence on SST include changes in atmospheric

ionization and cloud microphysics affecting cloud cover, storm invigoration, and tropospheric dynamics. Such changes modify upward wave propagation to the stratosphere, affecting the dynamics of the polar vortex. Also, direct solar inputs, including energetic particles and solar UV, produce stratospheric dynamical changes. Downward propagation of stratospheric dynamical changes eventually further perturbs tropospheric dynamics and SST."

Global Sea Surface Temperature Responses to the 1997/98 and 2015/16 El Niño Events

The world is currently experiencing a strong El Niño event of similar magnitude to the 1979/98 El Niño. Bob Tisdale prepared a blog post [here](#), with a series of graphs demonstrating that sea surface temperatures respond differently from one El Niño to the next. The 2015/16 El Niño reached its peak strength in November 2015 and is now declining as shown in [this graph](#). The global SST unexpectedly dropped from January to February 2016, unlike the 1997/98 El Niño. The SST response of the Pacific ocean to the current El Niño was noticeably less than the 1997/98 event. The North Pacific SST has dropped by 0.3 °C since November 2015, while the South Pacific SST hasn't declined yet. The Indian Ocean SST responded earlier and peaked earlier than in 1997. The North Atlantic SST responded earlier to the 2015/15 El Niño and peaked earlier than the 1997/98 event, but the South Atlantic SST has hardly responded at all to the current El Niño as shown [here](#).

Ken Gregory
Past Director, Friends of Science

SAVE THE DATE

SAVE THE DATE - May 10th, 2016 Calgary: Red & White Club Evening Event

Please join us on May 10th for our Friends of Science annual event. We are pleased to announce a two-part event - Science and Policy. For the Science - Dr. John Harper, former director of the Geological Survey of Canada will give a brief overview of 600 million years of climate versus the out-of-context current 166 year climate catastrophe obsession. Part Two for the Policy - we are very honoured to present our featured guest speaker Ezra Levant, broadcaster and bestselling author, who will address the catastrophic climate 'leadership' policies, their consequences and what you can do about it!

More details and ticketing information will be forwarded by the first week in April.

DONATIONS

To accomplish our goal of educating the broader public and policy makers on the diversity of views on climate change, and the important natural factors, we need financial help from our members. Thank you for your help to date. **This debate matters, you are making a difference.**

Please continue to make donations to Friends of Science. We can be a voice for your climate change issues – and we thank all of you who have given us tips on the misinformation they see in the marketplace. Donations made directly to Friends of Science will help us bring in quality guest speakers, expand our media presence and create a platform for informed debate. To make a contribution at www.friendsofscience.org; click on DONATE in the upper right of the home page. Alternately, you can mail donations to Friends of Science at the following address:

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