

US NUCLEAR ENERGY FOUNDATION "Nuclear Advocacy through Grassroots Education"

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Rebrand, Reuse, Recycle

A new directive is forming to **Rebrand**, **Reuse** and **Recycle** the messaging about nuclear technology. Some of us are working to revisit President Eisenhower's 1953 speech to the United Nations, "Atoms for Peace". The **US Nuclear Energy Foundation**, <u>http://go-nuclear.org/</u> **Environmentalists for Nuclear Energy** - USA, **EFN-USA**, <u>efn-usa.org</u>, **EFN-INTERNATIONAL**, <u>ecolo.org</u>, and **EFN-CANADA**, <u>http://ecolo.org/base/baseca.htm</u> are working to cooperate on developing new messaging about nuclear and renewable power technology. Let's really make, "all of the above, mean, ALL OF THE ABOVE"!

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The article below in **"Real Clear Energy"** is written by Mr. Marvin Fertel, President of the Nuclear Energy Institute. The organizations noted above support this article and are working to message to the grassroots that nuclear should be classified as a **renewable energy**.

Below the written article by Mr. Fertel are comments posted by John Shanahan, civil engineer - USA, Bruno Comby, nuclear engineer - France, and Eric Jelinski, mechanical engineer - Canada. These organizations contribute to global public education about nuclear energy, radioisotopes, radiation and why they are important for the grassroots public to understand. Radioisotopes have important applications in nuclear medicine and many other fields. Knowledge and education of these tools and the facts should be available to the public and not demonized.



http://www.realclearenergy.org/articles/2016/09/06/new yorks new climate policy model for other states 109242.html

New York's New Climate Policy a Model for Other States By Marvin Fertel September 6, 2016

When nuclear power plants prematurely shut down, it's bad news for society. We know this because of increased greenhouse gas emissions, job losses, and lost taxes associated with reactor shutdowns in California, Wisconsin, and Vermont in recent years. That's why New York's first-ever state clean energy standard — approved by the Public Service Commission last month — is good for the state's consumers, its economy and its environment.

America's 99 nuclear energy facilities produce vast amounts of electricity without emitting greenhouse gases — more specifically, 62 percent of U.S. carbon-free power generation. A credible program to reduce greenhouse gas emissions will require a portfolio of technologies and approaches, and nuclear energy is an indispensable part of that package. This is precisely the determination New York made.

Addressing the significance of her state's new energy policy, New York Public Service Commission Chairwoman Audrey Zibelman said the clean energy standard adoption "will bring numerous benefits to consumers, including a reduction in carbon and other harmful pollutants, and continued maintenance of fuel diversity." Public Service Commission staff estimates that the gross benefits of retaining the at-risk nuclear plants in the first two years of the program are approximately \$5 billion. Weighted against an estimated cost of less than \$1 billion, the program generates benefits for consumers in excess of five to one.

New York's visionary clean energy standard blazes a vitally important public policy precedent for achieving significant carbon reductions from all clean energy sources while maintaining a healthy economy. At the heart of the New York policy is a finding that there exists a social cost associated with emitting carbon. It's New York's determination that adverse health and economic effects result from failing to mitigate carbon emissions. Other states — many of which have renewable energy standards that ignore nuclear energy's role — should emulate New York and adopt clean energy standards. Numerous independent assessments demonstrate that preserving existing nuclear plants is one of the most economic ways to reduce carbon emissions and ensure economic growth.

New Yorkers will enjoy cleaner air and the state's action will maintain electricity production at three upstate nuclear plants that are at risk of premature closing. This will save thousands of well-paying jobs and is expected to spur hundreds of millions of dollars in short-term investments in energy infrastructure in upstate New York. But many reactors elsewhere in the country are under significant financial stress because their clean air and other secondary attributes are not fully valued while at the same time renewable energy sources are subsidized via tax credits and/or state and federal mandates to add wind and solar capacity.

New York correctly determined that to meet its aggressive clean air mandate it had to retain the most powerful low-carbon tool in its electricity generation portfolio — the state's nuclear plants. Renewable technologies such as wind and solar play important roles in mitigating carbon, but by their nature they are intermittent energy sources. Our amply electrified culture demands a stable, reliable power grid. Nuclear energy is the backbone of America's clean energy grid; it's always on, powering our homes and businesses through heatwaves and polar vortexes. And doing so cleanly.

Policymakers championing renewable technologies while allowing base-load nuclear plants to shut down are in effect taking one step forward and three back in efforts to combat the threat of climate change. The policy reality is we need to scale up both renewables and nuclear energy to achieve ambitious clean air targets.

Earlier this summer, President Obama joined his counterparts from Mexico and Canada in a commitment to produce one-half of North America's electricity with clean power sources by 2025. The agreement recognizes roles for renewables, carbon capture and storage plants, energy efficiency, and nuclear energy. It is, in effect, a clean energy standard for all of North America. At the highest levels of government there is today recognition that we cannot achieve significant reductions in carbon absent a significant role by nuclear energy.

New York has offered a blueprint for a prudent approach to a clean energy future built on nuclear energy and renewable energy sources. Policymakers and leaders in other states should closely review New York's clean energy standard and work expeditiously to enact comparable policies that expand these vital clean energy assets.

Fertel is president and chief executive officer of the Nuclear Energy Institute.

Comments:

John Shanahan

Yes, thanks to the important contribution of clean nuclear energy, New York certainly is a model for other states. Nuclear power plants emit no toxic gases into the atmosphere, it's not just about the debated question of CO2, but also about nitrogen oxides, sulfur oxides and toxic dust particles. A nuclear power plant also has a very small footprint and produces large amounts of clean energy on demand, not just when the sun shines or the wind blows. This is especially precious in highly urbanized areas, and to leave nature and wild life intact in non-urbanized areas. A nuclear power plant is compact and requires very little fuel: a truckload per year compared to trainloads per day when compared to burning coal. Even without taking in consideration the question of CO2, nuclear energy has many merits and multiple benefits for society and to protect the environment. It brings a major contribution to a cleaner world, in the state of New York as in other states and countries around the world. Look at the example of France compared to Germany: with 80% of its electricity being clean nuclear (and 15% clean hydraulic) France enjoys much cleaner air than in Germany (less pollution, no acid rains) and its electricity is half the cost per kWh in Germany (15 euro cents per kWh in France versus 30 euro cents per kWh in Germany). What a difference! We are very lucky to have clean nuclear energy available. It should be developed further.

This comment is posted by John Shanahan, civil engineer - USA, Bruno Comby, nuclear engineer - France, and Eric Jelinski, mechanical engineer - Canada.

<u>John Shanahan</u>

Fossil fuels made the first world what it is today: vastly better than before fossil fuels. They are desperately needed in the second and third worlds.

The question of whether CO2 from fossil fuels is/will cause catastrophic man-made global warming is highly debatable. The argument of the "precautionary principle" to stop use of fossil fuels likewise is highly debatable. Someday the question of CO2 from fossil fuels causing catastrophic man-made global warming will be settled. Nuclear power advocates who promoted nuclear power based on the scientifically wrong argument about CO2 from fossil fuels will then become a liability to nuclear power.

The world is going to continue to use fossil fuels at a very high proportion of all energy sources. Nuclear power should be promoted based on its own well understood advantages, not on the highly controversial scientific subject of catastrophic man-made global warming.

Nuclear power should be working to abandon/tear down inappropriate artificial barriers based on the Linear No-Threshold Hypothesis. This makes design, construction, operations and maintenance far more expensive than necessary. It should be working to use fast reactors and spent fuel recycling to provide up to 100 times more energy from the same amount of uranium while greatly reducing the volume of genuine nuclear waste and the time it needs to be safely stored.