

Noyes, Thomas G. (DNREC)

From: John Nichols <j.nichols87@yahoo.com>
Sent: Thursday, November 30, 2017 10:27 AM
To: Drew Slater; Howatt, Robert (DOS); Noyes, Thomas G. (DNREC)
Subject: This will kill wind if they include the not rare, but dirty production of rare earths.
Attachments: CO2 Emission global.pptx

Attention: **Tom Noyes**

Please add this to my list of public comments. Thank you.

John Nichols

http://www.governing.com/topics/transportation-infrastructure/gov-california-targeting-supply-chain-emission.html?utm_term=A%20First%20Among%20States%2C%20California%20Plugs%20the%20%27Carbon%20Loophole%27&utm_campaign=A%20First%20Among%20States%2C%20California%20Plugs%20the%20%27Carbon%20Loophole%27&utm_content=email&utm_source=Act-On+Software&utm_medium=email

Each 2 megawatt wind turbine contains about 300 lbs. of neodymium and 130 lbs. of dysprosium, according to the **Bulletin of Atomic Sciences**. Multiple these totals by at least 4 times the amount for the 8 megawatt behemoths proposed for offshore wind.

These materials are used to form the magnets used in modern wind turbines to generate electricity. Approximately 95% of the ore is mined and smelted in China. This reality, along with cheap Chinese and Indian dirty coal fired generation, explains why Asia's CO2 footprint continues to increase, while the U.S. CO2 emissions have declined.

Another way of thinking of this is the **transfer of wealth from developed economies to developing economies**. (Please see the attached chart below.)

According to the **Analysis of Global Security** mining one ton of rare earth minerals replaces about one ton of radioactive waste. If the U.S. adds wind generation at the 2012 rate of 13,131 MW of annual generating capacity, this means between 4.9 to 6.1 million pounds of radiation waste are created in China using **MIT data**.

The cancer and respiratory illnesses in the towns located near the mines, factories, and dumping grounds are truly astounding according to a reporting by the **Daily Mail**. Still think wind is clean or reduces CO2?

[In China, the true cost of Britain's clean, green wind power experiment: Pollution on a disastrous scale](#)



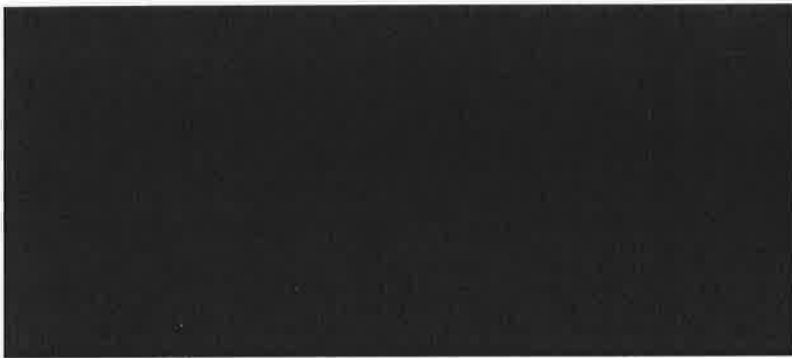


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This toxic lake poisons Chinese farmers, their children and their land. It is what's left behind after making th...

By comparison, America's nuclear industry produces between 4.4 and 5.5 pound of spent nuclear waste each year. This could be stored at Yucca Mountain except the Obama Administration pulled funding in 2010.

Obama to zero out Yucca Mountain funding, pull license



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WASHINGTON - President Barack Obama plans to zero out funding for Yucca Mountain and "take steps" to withdraw th...

A "**Buy Clean Delaware Energy**" bill should be introduced.

Adapted from information from **The Institute For Energy Research**.