

## Nuclear Power Disadvantage

### **A. Uniqueness: Nuclear Power Strengthening now and if unhindered, can solve warming**

**Galluci, 14**

The Obama administration's new rules aimed at reducing the emissions of greenhouse gases appear likely to boost a beleaguered yet enormous industry: nuclear power.

As experts sifted through the details of the regulations proposed by the Environmental Protection Agency and announced earlier this week, they anticipated that some states could lean more heavily on nuclear power plants as they are forced to diminish their reliance on coal-fired electricity.

States that had planned to mothball aging and expensive nuclear plants might choose to continue operating these facilities under the emissions plan. The nuclear industry still grappling with fears spawned by the disaster in Fukushima, Japan, alongside competition from cheap natural gas—has effectively been handed an opportunity to push ahead, say experts.

Investing in nuclear “may be more attractive now with this rule,” said Doug Vine, a senior energy fellow at the Center for Climate and Energy Solutions, a policy organization. “We think it changes the [economic] equation.”

The EPA's proposal, unveiled Monday, aims to slash carbon dioxide emissions to 30 percent below 2005 levels by 2030, in large part by shifting the nation's energy mix away from carbon-intensive coal plants and toward cleaner sources like natural gas, renewable energy and nuclear power. Reductions will also come through energy-efficiency measures such as retrofitting older buildings or installing “smart” appliances that use less energy.

In that context, nuclear offers a relatively straightforward way for states to achieve reductions in their carbon emissions: Since nuclear plants emit no carbon when they operate, states have an incentive to keep existing plants running or to build new ones in order to meet their individual targets.

Without an emissions mandate, aging or unprofitable plants would likely be retired and replaced mainly by coal or natural-gas fired electricity, Vine said. But under the regulations,

**Link: Wind Power is not economical, wastes taxpayer money, and trades off with nuclear power. Goreham 14**

**What industry pays customers to take its product? The answer is the U.S. wind industry.** Wind-generated electricity is typically bid in electrical wholesale markets at negative prices. **But how can wind systems operate at negative prices?**

**The answer is** that **the vast majority of U.S. wind systems receive a federal production tax credit (PTC)** of up to 2.2 cents per kilowatt-hour for produced electricity. Some states add an additional credit, such as Iowa, which provides a corporate tax credit of 1.5 cents per kw-hr. So wind operators can supply electricity at a pre-tax price of a negative 3 or 4 cents per kw-hr and still make an after-tax profit from subsidies, courtesy of the taxpayer.

As wind-generated electricity has grown, the frequency of negative electricity pricing has grown. When demand is low, such as in the morning, wholesale electricity prices sometimes move negative. In the past, negative market prices have provided a signal to generating systems to reduce output.

But wind systems ignore the signal and continue to generate electricity to earn the PTC, distorting wholesale electricity markets. **Negative pricing by wind operators and low natural gas prices have pushed nuclear plants into operating losses.** **Yet, Congress is currently considering whether to again extend the destructive PTC subsidy.**

This will divert investment from the nuclear industry causing a slowdown within the nuclear industry where the taxpayers money is **much** needed to provide cheaper energy.

**Impact: Only Nuclear Power can reduce greenhouse gas emissions. Only Nuclear power solves Warming.**

**Caldeira 13**

To those influencing environmental policy but opposed to nuclear power:

As climate and energy scientists concerned with global climate change, we are writing to urge you to advocate the development and deployment of safer nuclear energy systems. We appreciate your organization's concern about global warming, and your advocacy of renewable energy. But **continued opposition to**

**nuclear power threatens humanity's ability to avoid dangerous climate change.**

We call on your organization to support the development and deployment of safer nuclear power systems as a practical means of addressing the climate change problem. **Global demand for energy is growing rapidly and must continue to grow to provide the needs of developing economies.** At the same time, the need to sharply reduce greenhouse gas emissions is becoming ever clearer. **We can only increase energy supply while simultaneously reducing greenhouse gas emissions if new power plants turn away from using the atmosphere as a waste dump.**

Renewables like **wind and solar and biomass** will certainly play roles in a future energy economy, but those energy sources **cannot scale up fast enough to deliver** cheap and reliable **power at the scale the global economy requires.** While it may be theoretically possible to stabilize the climate without nuclear power, in the real world **there is no credible path to climate stabilization that does not include a substantial role for nuclear power.**

We understand that today's nuclear plants are far from perfect. Fortunately, passive safety systems and other advances can make new plants much safer. And modern nuclear technology can reduce proliferation risks and solve the waste disposal problem by burning current waste and using fuel more efficiently. Innovation and economies of scale can make new power plants even cheaper than existing plants. Regardless of these advantages, nuclear needs to be encouraged based on its societal benefits.