

The contrarian

The nuclear option

Could Obama seriously push nuclear energy? A recent \$8bn package suggests he just might, says Jon Entine

An ashen Walter Cronkite intoned: “The world has never known a day quite like today.” The face of American television news was speaking on March 28 1979, the day a faulty cooling valve led to a meltdown at Three Mile Island.

Nuclear Armageddon did not arrive – there is no conclusive evidence that anyone was even injured that day – but the incident did mark the beginning of the dark ages in the nuclear power industry in the US. New plant construction was halted. An absolutist opposition to nuclear power became a canon of the American left.

It was hardly surprising then that anti-nuclear advocacy groups reacted in orchestrated horror when Barack Obama, taking a centrist position, announced the government would provide \$8bn in federal loan guarantees to build two nuclear reactors. With two dozen or so nuclear plants stalled on the drawing board across the US, supporters hope the guarantees mark the beginning of a nuclear revival.

According to the left’s playbook, there is no viable way to reduce greenhouse gases except to ratchet up renewable energy sources such as hydro, solar and wind power and clean coal technologies. Nuclear energy, they remind us, currently represents just 16% of the world’s supply, and that percentage is expected to grow only fractionally over the next two decades even if the US market opens up.

That’s the all-or-nothing argument. Let’s be clear, we still get about 10,000% more energy from nuclear sources than from all the renewable (non-hydro) alternatives that exist in the world. A massive switchover to alternatives is not and never was technologically feasible.

The main resistance in the US has not been technological but financial. You can’t build new plants without loans. But bankers hate nuclear investments because of the inevitable regulatory struggles. That creates uncertainty. If the government comes through with guarantees then uncertainty becomes more manageable.

But will banks make loans? Nuclear energy is not Wall Street’s friendliest money-making model. It is capital intensive at the front-end, takes years to break even, but then offers low ongoing costs and high returns.

Game changing

That’s the opposite of the high leverage, fast profits style of hedge and private equity funds that fuelled the get-rich-quick era. But the equation is changing. As fossil fuels become scarcer and pricier, nuclear costs will also decline over time, just like with all technology.

Even today, nuclear energy is cost competitive. A 1,500-megawatt reactor should cost about \$5bn, which sounds expensive until you compare it to alternative energy favourites. The equivalent capacity in wind power could easily cost \$4bn: 4,000 wind turbines at \$1m apiece plus miles of transmission lines and backup natural gas generators for when the wind doesn’t blow.

Nuclear is consistently more reliable than other forms of energy, up and running 90% of the time. Although it constitutes only 11% of US generating capacity, it actually provides 20% of the electricity.

Concerns over emissions and waste, once considered insurmountable, are dated. The “emissions” from nuclear power plants are almost the same as any large concrete structure.



Still sinister?

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There is little evidence that the very occasional low radioactive air releases represent any health risks.

The US energy department’s proposal to drop plans for a federal nuclear waste vault at the Yucca mountain storage facility has revived the issue of what to do with nuclear waste. It’s addressable. The problem results from decisions made in the 1970s to halt fuel reprocessing, which reduces the volume of spent fuel by 97%. France reprocesses and stores beneath the floor of one room in their La Hague plant all of their waste from 30 years of nuclear energy production.

Claims that Obama is the puppet of the American nuclear power lobby are laughable. There isn’t much of an American nuclear energy industry. Areva is French. Toshiba owns Westinghouse. South Korea has a growing footprint. GE partners with Hitachi but they have only a tiny slice of the market. When the first new reactors are built here, 70% of the parts will come from abroad.

Obama sensibly recognises that a technologically advanced society has to place a lot of energy bets to seriously confront our carbon-limited future. If the congenital sceptics don’t block construction of new nuclear facilities, he may yet go down in history as the first green energy president. ■



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