

THE 5 W's

Why the U.S. must rethink its use of nuclear power

Waste Since Yucca Mountain, the original proposed site for a deep geological repository to hold the nation's waste had its budget cancelled there is no long term plan to store the vast amounts of highly radioactive commercial waste created by the nuclear industry. Reprocessing, or "recycling" is not an adequate approach, both because it is a technology that enables weapons production and because there are no reactors able to use reprocessed fuel. While the Blue Ribbon Commission, appointed by President Obama, has investigated a path for commercial waste storage, the best answer they have so far is sending all the waste to one Department of Energy Site to be stored indefinitely (Idaho could be on this list of sites). The Alliance has long argued that nuclear waste should be stored as safely as possible as close to its point of generation as possible. But the best solution to nuclear waste, that has a half-life of 250,000 years, is not to produce any more of it.

Water Thermoelectric generation and nuclear power in particular use vast quantities of water upwards of 30 million gallons/day. At times of increasing drought related to climate change, especially in the arid west, does it make sense to use a technology that needs water to operate safely?

Wall street After the Three-Mile Island nuclear disaster in the late 70's Wall Street completely pulled out of supporting the nuclear industry. Now, the nuclear power industry relies on massive loan guarantees from the federal government that put our taxpayer dollars at risk in the event that the developer defaults. The Congressional Budget Office has estimated that the default rate for these projects is above 50%. Moreover, nuclear power used to be touted as "too cheap to meter" it has become clear that it is actually too expensive to matter. It takes upwards of \$12 billion to build a nuclear plant and that high capitol cost translates to rates that can cost anywhere from 15-30 cents/kilowatt-hour.

Wait, wait, wait Nuclear power plants take a long time to build. The average length from start to finish can be 10-15 years. If climate scientists are telling us that we have 6-8 years to meaningfully reduce our carbon emissions, it is not possible for a new fleet of reactors to be built safely and economically in time to address carbon reductions. Nuclear power takes too long to be a reasonable solution to climate change. Energy efficiency and renewable are available more cheaply and safely now.

Weapons There is an inextricable link between nuclear power and nuclear weapons. The nuclear power industry was built as a subset of a nuclear weapons complex dealing with the public horror over the bombings of Hiroshima and Nagasaki at the end of World War II, which resulted in the annihilation of 250,000 people. But the supposedly "peaceful atom" still supports a weapons complex in the US and the world that is growing bigger every year. Additionally, technologies that accompany nuclear power, like uranium enrichment and reprocessing, are essential steps in making a nuclear weapon. We will never be able to live in a nuclear weapons free world if nuclear power continues to expand.



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