

Dan Gamble

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Nuclear vs. Solar

Nuclear Facts

1. Upstate South Carolina already contains 5 parts per billion of elemental uranium in the groundwater, without adding a new reactor.
2. NRC's Emergency Planning Zone: within a 50-mile radius of this proposed nuclear site there are 2 million people at risk of a nuclear emergency.
3. \$14 Billion = 2.2 gigawatts of capacity
4. up to 10 years before this nuclear plant produces a single watt.
5. 3,000 construction jobs created
6. Creates a new Dead zone that cannot be easily cleaned or reused for anything else.
7. Needs backup generators or millions of gallons of water to prevent it from catastrophically melting down.
8. Depends on high-maintenance moving parts, that have a higher risk of failure.
9. Takes several days to shut down for maintenance or emergencies.
10. A high-risk target to terrorist attacks.

Solar Facts

1. Solar contains no radioactive materials.
2. Solar does not need an Emergency Planning Zone.
3. \$14 billion = 3.9 gigawatts of capacity
4. Rapid deployment. Start producing power within a month, full power within 2 years.
5. 27,000 construction jobs created
6. Has a minimal impact on the land. All solar materials are non-toxic and can be removed and recycled.
7. Does not threaten the drinking water supply. Does not need cooling from the Broad River.
8. Solid state, no moving parts, low-maintenance
9. Immediate shutdown, if necessary.
10. Not a target to terrorists.

Conclusion:

If work on the solar began today, it would produce over 50 billion-kilowatt hours before this nuclear reactor makes a single watt. With the present timeline of design, approval and construction for the William States Lee III nuclear facility, it would take 15 years for these two nuclear reactors to catch up to the accumulated kWh output of a 3.9 Gigawatt solar power plant. My plan provides a quicker return on investment for Duke Energy, and clean renewable energy right now for this fast-growing region.

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Nuclear vs. Solar:
A Cost and Environmental
Comparison