

Nuclear Power: Ten Killer Facts

By Tom Burke, Tony Juniper, Jonathon Porritt, Charles Secrett, 2 May 2012

“We have not been able to identify any single independent commentator or expert who believes it will be possible to undertake a new build programme without massive, ongoing public subsidy.”

1. The 2010 / 2011 liability for cleaning up our existing nuclear programme was around **£7 billion**. This translates into a liability of £350 per household per annum – **8 times** the subsidy that is available for renewables. Total liabilities for the nuclear power programme (including decommissioning) amount to more than **£70 billion**.
2. The French company EDF is proposing to bring forward a new build programme based on the EPR. The estimated cost for the EPR reactor at Olkiluoto in Finland was £3.3 billion. Current projected cost for Olkiluoto is **£5.3 billion**. The estimated cost of the EPR reactor at Flamanville in France was £3.3 billion. Current predicted cost is **£6 billion**.
The Government wants to build ten of these reactors.
3. Areva is the French company that will deliver the new programme for EDF. The average time from start of construction to full grid connectivity for Areva’s last four reactors was **17.5 years**.
4. The estimated cost of constructing a nuclear power plant has increased at a rate of around **15% per annum**. Depending on the technology involved, the cost of renewables continues to come down year on year.
5. Best estimates of the clean-up costs for Fukushima indicate a liability of not less than **\$250 billion**. Japan’s national debt will increase by as much as \$150 billion as part of this.
6. Corporate liability for serious nuclear accidents in the UK will be limited to **€1.2 billion**. The Government (ie UK taxpayers) will cover any costs above that limit. If the industry had to bear that cost (rather than UK taxpayers), the market cost of nuclear power would rise by **at least twice as much as its present price**.
7. The best estimates show that a like-for-like investment in wind power will create at least **12 times** as many jobs as that same investment in nuclear; a like-for-like investment in solar power will create at least **360 times** as many jobs as that same investment in nuclear. Investing in energy efficiency creates more jobs than investments in any form of generation.
8. Despite ongoing protestations that there will be “no subsidy” for new nuclear power stations, the Treasury has acknowledged that the nuclear industry will receive “an average of £50 million per annum through to 2030”. Environmental NGOs have estimated that this annual subsidy will in fact be as much as **£260 million a year**.
9. Nuclear energy is often cited as a low-carbon or even a very low-carbon source of electricity generation. This is highly debateable. Researchers at Stanford University have calculated that nuclear power emits between **9 and 25 times** more greenhouse gases than wind power, depending on the quality of the uranium ore that is used.
10. Nuclear energy is often cited as a very reliable source of electricity generation. This is highly debateable. Of the 132 nuclear plants constructed in the US, **21% have been prematurely and permanently closed** due to reliability or cost-effectiveness issues. A further 27% have completely failed at least once for a year or more.

Germany has already installed more windpower than the entire UK nuclear capacity. Every year it installs the windpower equivalent of one new nuclear reactor. It will be building no more reactors.

(All these facts are referenced in the six Briefings released as part of this initiative, which can be found on www.jonathonporritt.com www.tomburke.co.uk For more information: JPOffice@forumforthefuture.org