



For Immediate Release

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Nuclear Power is no solution to climate emergency:
Hinkley Point C site in danger of being inundated by rising sea-levels

In the week in which parliament will debate whether to declare a national environmental and climate change emergency (1) and the Committee on Climate Change is expected to recommend that the Government sets a new goal for reducing carbon emissions to net zero by 2050 (2) the Stop Hinkley Campaign has warned against assuming that nuclear power can play a role in meeting these ambitious new targets.

Nuclear power plants located along coastlines are not well suited to an era when sea-levels are rising due to climate change. Coastal nuclear power plants could be at-risk from being flooded making them inoperable and dangerous. Their radioactive waste inventories, if not moved in time, could be in danger of leaking into the oceans. Some researchers say sea levels could rise by six metres or more even if the 2 degree target of the Paris accord is met. Sustained warming of one to two degrees in the past has been accompanied by substantial reductions of the Greenland and Antarctic ice sheets and sea level rises of at least six metres – several metres higher than what current climate models predict could occur by 2100. (3)

Stop Hinkley spokesperson Katy Attwater said

“When there is so much uncertainty about sea-levels and storm surges over the next 125 years do we really want to be building new nuclear facilities and highly radioactive waste stores on the coast? Hinkley Point B came close to being inundated in December 1981 – and there’s been 38 years of accelerating global warming since that near miss. EDF is just guessing that its planned sea wall will be effective, given what we are learning about the rate of sea level rise on an almost daily basis.”

Other reasons why nuclear power is not a solution to the climate emergency include:

- **New Nuclear Reactors will be too late.** Early cuts in carbon emissions are crucial to keeping global average temperature rises at or below 1.5°C. The International Panel on Climate Change says the world needs to slash greenhouse gas emissions by 45 percent below 2010 levels by 2030. (4) If Hinkley Point C is half as late as similar reactors being built in France and Finland it will miss this deadline. Any other proposed nuclear stations have virtually no chance of being ready by 2030.
- **Dealing with climate change is urgent so we must spend our limited resources as effectively and quickly as possible** - best buys first, not the more the merrier. For each pound we spend we need to buy the maximum amount of “solution” possible. (5) New nuclear projects take at least ten years to build compared with 2-5 years for utility scale solar

or wind schemes. So nuclear effectively emits large amounts of carbon dioxide during the wait for projects to come online. (6)

- **Energy Efficiency Programmes would be much quicker and efficient.** Electricity generation in 2018 was some 63TWh (16%) lower than in 2005, a reduction equivalent to 2.5 times the expected output of Hinkley Point C. This is despite the UK population increasing by 10% from 60 million to 66 million people. (7) Cost-effective investments in domestic energy efficiency alone between now and 2035 could save around 140TWh. (8) An accelerated programme of LED lighting installation alone could reduce peak electricity demand by almost two and a half Hinkley Point Cs. (9)
- **Nuclear energy use impedes cheaper renewable energy development.** New nuclear power stations would be crowd out renewables because they are expected to operate 24/7, causing windfarms and solar farms to be turned off. Nuclear power is not helpful in balancing a variable energy supply – it simply leads to further overproduction of energy at times when renewables can meet demand on their own. In a grid which has a large contribution from variable renewables, what is required is flexible electricity supply which can be turned on and off quickly to fill the troughs when renewables aren't able to supply. (10)
- **Nuclear power has a big carbon footprint.** One analysis which looked at 103 different studies suggests nuclear power produces about 66 grams of carbon dioxide for every kWh produced compared to about 9g for wind, 32g for solar and 443 for gas. This puts nuclear as the third highest carbon emitter after coal-fired plants and natural gas. If a large programme of reactors were built around the globe, life-cycle emissions would increase as the quality of uranium used decreased, making it necessary to use more energy to get the uranium out of the ground.(11)

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Notes

- (1) Observer 27th April 2019 <https://www.theguardian.com/environment/2019/apr/27/corbyn-declares-national-climate-emergency>
- (2) The i News 29th April 2019 <https://inews.co.uk/news/environment/government-reduce-greenhouses-gas-emissions-zero-2050/>
- (3) See Stop Hinkley Briefing on Hinkley Point C and Sea Level Rise, July 2018 <http://www.stophinkley.org/Health/Hinkley%20Point%20C%20&%20Sea-Level%20Rise.pdf>
- (4) Vox 8th Oct 2018 <https://www.vox.com/2018/10/8/17948832/climate-change-global-warming-un-ipcc-report>
- (5) Scientific American September 2005 <https://static.scientificamerican.com/sciam/assets/media/pdf/Lovinsforweb.pdf>
- (6) PV Magazine 18th April 2019 <https://www.pv-magazine.com/2019/04/18/there-is-no-such-thing-as-a-zero-or-near-zero-emission-nuclear-power-plant/>
- (7) Carbon Brief 3rd January 2019 <https://www.carbonbrief.org/analysis-uk-electricity-generation-2018-falls-to-lowest-since-1994>
- (8) Carbon Brief 6th Sept 2017 <https://www.carbonbrief.org/energy-efficiency-policies-save-uk-homes-270-report-finds>
- (9) Ecologist 7th June 2016 <https://theecologist.org/2016/jun/07/urgent-case-mass-switch-led-lighting>
- (10) The Power of Flexibility: The Survival of Utilities During the Transformations of the Power Sector, Chatham House 22nd August 2018 <https://www.chathamhouse.org/publication/power-flexibility-survival-utilities-during-transformations-power-sector>
- (11) Energy Policy Volume 36, No. 8 August 2008 <https://www.sciencedirect.com/science/article/pii/S0301421508001997>