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**From Fukushima to Hinkley:
*Dismantling the nuclear argument for a
sustainable energy future –
The Alternative for South West, England***
by
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The Resilience Centre

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Our Awards and Recognition





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Renewable Energy Opportunities in South West

- The South West region has the renewable energy resources to meet more than 100% of its total energy needs, including replacement of liquid fuels and electrifying its railways.
- Approximately 103% of our total energy need can be readily achieved, the main barrier to achieving this is positive political support.
- The South West can generate 66,582,610 MWhrs/year of Energy as both electricity and thermal energy (66,582 GWhrs/year) from 31,700MW of Renewable Energy Generating Capacity (electricity & thermal capacity)
- 26% of South West energy needs can be met from Marine and inshore estuarine tidal energy, and 74% from Onshore Renewable Energy.
- Intermittency of renewables can be overcome by installing 11,440 MWe Capacity of Smart Grid Energy Storage & develop demand led local Smart Grids to match & respond to communities energy needs.



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Renewable Energy Opportunities in South West

- Smart Energy Storage would provide 16,702,400MWhrs/year (25%) of Energy as local demand required as well as Grid Resilience
- Total potential Full Time Equivalent jobs created are estimated to be 124,000 jobs if we deliver and maintain this renewable energy generation regionally, an increase in employment of 4.6% for the region.
- We estimate that the Capital Cost of delivering such a programme would be £62,421 Million, which includes £10,810 Million on Smart Grid Energy Storage (76% of equivalent cost of delivering with Nuclear)
- The equivalent cost of deliver 100% of the South West Energy needs from Nuclear is £82,510 Million or 132% of the equivalent cost of delivering with renewable energy.
- Renewables costs provide for a local Smart Grid with Energy Storage and flexibility to meet spikes and drops in demand and reduce need to large scale pylons and transmission systems.
- Total capital costs for Renewables includes for £333 Million investment in local/regional grid resilience work for future generations.



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BUILDING RESILIENCE TOGETHER: THE RESILIENCE CONTINUUM





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Thank you for listening

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