

From: [Jonathan Dean](#)
To: [NDE](#)
Subject: consultation feedback
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Attachments: [Draft NDE consultation feedback - renewables target v0.1.pdf](#)

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Dr Jonathan F Dean



<https://you.38degrees.org.uk/petitions/anglesey-says-no-to-pylons>

The renewable generation target of 70% by 2030 needs to be based on a realistic forecast of likely demand ...

NDF target¹	70% of electricity from renewables			
2018 consumption²	91 TWh total energy, 14.9 TWh electricity of which 7.4 TWh is from renewables (50%)			
	2030 electricity consumption estimate based on ...			
	2018 consumption	Arup report 2, page 155³ "target"	DUKES/BBC⁴ estimate	Arup report 2, page 155 "high" using the 15 Priority Areas to full extent
Total demand	14.9 TWh	= 16.5/70% = 23.6 TWh	= 14.9 x 3 = 44.7 TWh	= 103.4/70% = 147.7 TWh
Renewable demand	= 14.9 x 70% = 10.4 TWh	= 7.4 + 9.1 = 16.5 TWh	= 44.7 x 70% = 31.3 TWh	= 7.4 + 96.0 = 103.4 TWh
2018 renewable generation	7.4 TWh	7.4 TWh	7.4 TWh	7.4 TWh
Additional renewable generation required	= 10.4 – 7.4 = 3.0 TWh	9.1 TWh	= 31.3 – 7.4 = 23.9 TWh	96.0 TWh
Number of GE Haliade-X 12 MW (67 gross AEP⁵) offshore turbines needed to meet additional generation requirement	= 3.0 x 1000/67 = 45	= 9.1 x 1000/67 = 136	= 23.9 x 1000/67 = 357	= 96.0 x 1000/67 = 1,433

... or wildly differing estimates of generating capacity result, discrediting the NDF

¹ <https://gov.wales/sites/default/files/consultations/2019-08/Draft%20National%20Development%20Framework.pdf>

² <https://www.regen.co.uk/wp-content/uploads/Energy-Generation-Wales-2018-1.4.pdf>

³ https://gov.wales/sites/default/files/publications/2019-08/stage-2-refinement-of-priority-areas-for-wind-and-solar-energy_0.pdf

⁴ <https://news.files.bbc.co.uk/include/newsspec/pdfs/bbc-briefing-energy-newsspec-25305-v1.pdf>

⁵ <https://www.ge.com/renewableenergy/wind-energy/offshore-wind/haliade-x-offshore-turbine>