

S15 Table. Estimated energy availability through the deployment of fixed-base offshore wind energy. Areas available, potential installed capacities and annual energy output under different scenarios, considering the available resource along with physical, policy and ecological constraints.

Fixed-base offshore turbines		High ecological risk scenario			Medium ecological risk scenario			Low ecological risk scenario		
		(no sensitivity applied)			(high sensitivity areas excluded)			(medium and high sensitivity areas excluded)		
Opportunity	Constraints	Area (km ²)	Potential installed capacity (GW)	Annual energy output (TWh/yr)	Area (km ²)	Potential installed capacity (GW)	Annual energy output (TWh/yr)	Area (km ²)	Potential installed capacity (GW)	Annual energy output (TWh/yr)
Prime	<i>None</i>	14,374	72	315	843	4	18	264	1	6
	<i>Physical only</i>	11,903	60	261	679	3	15	191	1	4
	<i>Physical + Policy level 1</i>	8,555	43	187	498	2	11	95	0	2
	<i>Physical + Policy levels 1 & 2</i>	7,149	36	157	435	2	10	60	0	1
	<i>Physical + Policy levels 1, 2 & 3</i>	1,536	8	34	107	1	2	37	0	1
Prime & good	<i>None</i>	89,595	448	1963	9,252	46	203	3,617	18	79
	<i>Physical only</i>	67,639	338	1482	7,436	37	163	2,333	12	51
	<i>Physical + Policy level 1</i>	54,842	274	1202	6,591	33	144	1,763	9	39
	<i>Physical + Policy levels 1 & 2</i>	39,296	196	861	5,190	26	114	813	4	18
	<i>Physical + Policy levels 1, 2 & 3</i>	15,276	76	335	3,049	15	67	233	1	5
Prime, good & technical	<i>None</i>	106,173	531	2327	14,453	72	317	7,242	36	159
	<i>Physical only</i>	82,848	414	1816	12,499	62	274	5,859	29	128
	<i>Physical + Policy level 1</i>	69,237	346	1517	11,578	58	254	5,229	26	115
	<i>Physical + Policy levels 1 & 2</i>	51,923	260	1138	9,977	50	219	4,134	21	91
	<i>Physical + Policy levels 1, 2 & 3</i>	22,700	114	497	7,341	37	161	3,162	16	69

Power density = 5 MW/km² [1]; load factor = 0.5 [2].
 [1] The Offshore Valuation Group. The Offshore Valuation: A valuation of the UK's offshore renewable energy resource. Machynlleth: Public Interest Research Centre; 2010. Available: <http://www.ppaenergy.co.uk/web-resources/resources/467ac5b8919.pdf>. Accessed 2015 Oct 28.
 [2] Energy Numbers. Capacity factors a Danish offshore wind farms. Available: <http://energynumbers.info/capacity-factors-at-danish-offshore-wind-farms>. Accessed 2015 Nov 04.