

S16 Table. Estimated energy availability through the deployment of floating 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.

| Floating 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> | 109,573 | 548 | 2,401 | 14,632 | 73 | 321 | 12,405 | 62 | 272 |
| | <i>Physical only</i> | 100,606 | 503 | 2,205 | 13,617 | 68 | 298 | 11,475 | 57 | 251 |
| | <i>Physical + Policy level 1</i> | 94,029 | 470 | 2,061 | 13,003 | 65 | 285 | 10,945 | 55 | 240 |
| | <i>Physical + Policy levels 1 & 2</i> | 74,409 | 372 | 1,631 | 12,136 | 61 | 266 | 10,300 | 52 | 226 |
| | <i>Physical + Policy levels 1, 2 & 3</i> | 26,619 | 133 | 583 | 8,152 | 41 | 179 | 7,241 | 36 | 159 |
| Prime & good | <i>None</i> | 365,996 | 1,830 | 8,021 | 198,851 | 994 | 4,358 | 171,088 | 855 | 3,749 |
| | <i>Physical only</i> | 337,193 | 1,686 | 7,389 | 182,701 | 914 | 4,004 | 156,724 | 784 | 3,435 |
| | <i>Physical + Policy level 1</i> | 326,125 | 1,631 | 7,147 | 178,072 | 890 | 3,902 | 152,476 | 762 | 3,341 |
| | <i>Physical + Policy levels 1 & 2</i> | 296,198 | 1,481 | 6,491 | 170,260 | 851 | 3,731 | 146,006 | 730 | 3,200 |
| | <i>Physical + Policy levels 1, 2 & 3</i> | 219,233 | 1,096 | 4,804 | 150,886 | 754 | 3,307 | 128,998 | 645 | 2,827 |
| Prime, good & technical | <i>None</i> | 561,208 | 2,806 | 12,299 | 346,013 | 1,730 | 7,583 | 273,024 | 1,365 | 5,983 |
| | <i>Physical only</i> | 530,514 | 2,653 | 11,626 | 328,628 | 1,643 | 7,202 | 257,875 | 1,289 | 5,651 |
| | <i>Physical + Policy level 1</i> | 519,446 | 2,597 | 11,383 | 323,999 | 1,620 | 7,100 | 253,627 | 1,268 | 5,558 |
| | <i>Physical + Policy levels 1 & 2</i> | 489,519 | 2,448 | 10,728 | 316,187 | 1,581 | 6,929 | 247,157 | 1,236 | 5,416 |
| | <i>Physical + Policy levels 1, 2 & 3</i> | 412,552 | 2,063 | 9,041 | 296,813 | 1,484 | 6,505 | 230,149 | 1,151 | 5,044 |

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.