

European Offshore Wind Deployment Centre Environmental Statement

Appendix 1.2: Household Calculations



Household Calculations

If consented and built it is expected that the EOWDC at 100 MW would generate up to 306,600 megawatt hours (MWh) of green electricity every year, which is equivalent to the total annual electricity needs of around 68,468 UK households*.

*This is calculated in the following way:

Number of hours in the year: 8760

Installed capacity: 100 MW

Assumed capacity factor for offshore wind: 35%

Average annual UK household electricity consumption: 4,478 kilowatt hours (kWh)

For example: $(8760 \times 100 \times 0.35) \times 1000 = 306,600,000$ kWh divided by 4,478 = 68,468 homes.

Share of households that would have been provided with electricity from the EOWDC in 2008: $68,468/102,900^1 = 66.5\%$

Estimated share of households provided with electricity from the EOWDC in 2013: $68,468/108,150 = 63.3\%$

¹ This assumes number of households in Aberdeen was 102,900 in 2008. This is based on the "Household Projections for Scotland 2008-based" from the General Register Office for Scotland (2010).