## Request

**Would it be possible for you to send me the breakdown of the TWh and GW figures for the various technologies covered by "renewables" in Annex D, I and J please?**

## Response

The attached spreadsheet contains breakdowns for the electricity sector central scenario renewables totals published in October in DECC's Updated Energy and Emissions Projections (UEP)[1]. The further information provided is a disaggregation of renewable new build, total capacity and generation by main type of renewable. The tables show the disaggregated information currently available.

Since the publication of the UEP data some small errors were detected in the aggregate figures in published Annexes D, E, I, J, K and L. The information provided in the attachment includes the corrected figures. Corrected Annexes will be made available as soon as possible.

The context of the UEP work needs to be made clear. The electricity scenario published with the DECC's published projections are based on a set of assumptions including technology costs, economic growth, fossil fuel prices and policy impacts. These assumptions were based on the latest evidence available at the time the modelling was undertaken. The projections for individual technologies are very sensitive to assumptions on technology costs, projections for future electricity demand and the assumed level of decarbonisation to be achieved through Electricity Market Reform (EMR)[2]. The technology breakdown in the attached spreadsheet is the modelled outcome of a particular scenario based on a set of input assumptions and does not represent government targets or a preferred technology mix. The UEP projections also do not take account of future policies that will affect the level of future electricity demand.

The UEP projections are intended as high level long run projections for energy demand, emissions and electricity generation under current firm and funded policies. Therefore, the analysis does not look at all the possible scenarios to achieve DECC objectives. There is a wide range of uncertainty over fossil fuel prices and technology costs, and the rate at which costs of different renewables technologies will change over time is particularly uncertain. This means the projected generation mix should be viewed as indicative of more general trends. It is changes in the relative costs of different technologies that will drive actual future deployment but it is not possible to predict which technologies will achieve faster cost reductions and those where technological progress will be slower. The UEP projections are based

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1 http://www.decc.gov.uk/en/content/cms/about/ec_social_res/analytic_projs/en_emis_projs/en_emis_projs.aspx

2 For the purposes of these projections, an illustrative decarbonisation level of 100gCO2/kWh in 2030 is used for the power sector. The Government will take a power in the Energy Bill to set a decarbonisation target range for the power sector through secondary legislation. It was not possible to take account of the recent decision on the Levy Control Framework or the OBR growth figures to be published alongside the Autumn Statement as these were not available at the time the modelling was undertaken.

on central projections for reductions in costs over time based on trends in similar technologies. This is a different approach from the range of ambition in the Renewable Energy Roadmap[3] which reflected the impact of a range of factors on deployment such as: changes to fossil fuel prices; future cost reductions and the success of overcoming non-financial barriers to deployment. The Roadmap ranges for particular technologies were not constrained to a total level of renewable electricity, and therefore the total of the high end of the Roadmap ranges will exceed the level of renewables in the UEP by 2020.

[3] http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/renewable-energy/2167-uk-renewable-energy-roadmap.pdf