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30 September 2019

Dear Andrew,

RenewableUK's members are building our future energy system, powered by clean electricity. We bring them together to deliver that future faster; a future which is better for industry, billpayers, and the environment. We support over 400 member companies to ensure increasing amounts of renewable electricity are deployed across the UK and to access export markets all over the world. Our members are business leaders, technology innovators, and expert thinkers from right across industry.

RenewableUK welcomes the opportunity to comment on the consultation on refined residual banding and renewables sensitivity analysis in the Targeted Charging Review (TCR).

Wider system modelling – renewable sensitivities

We appreciate Ofgem taking on the concerns expressed by RenewableUK and others about the implications of the reforms on renewable generation and are pleased to see modelling on the impact of these changes.

We fully support additional scenario which assumes that the reforms will have a detrimental impact on expected deployment of renewables and affect the benefits case of the proposed package of reforms.

Notwithstanding our support for Ofgem's recognition that there will be a detrimental impact on renewables and for the opportunity to provide feedback on the sensitivity analysis, we would like to raise a few areas for further review to improve the robustness of the analysis. We believe that consideration should be given to the following areas:

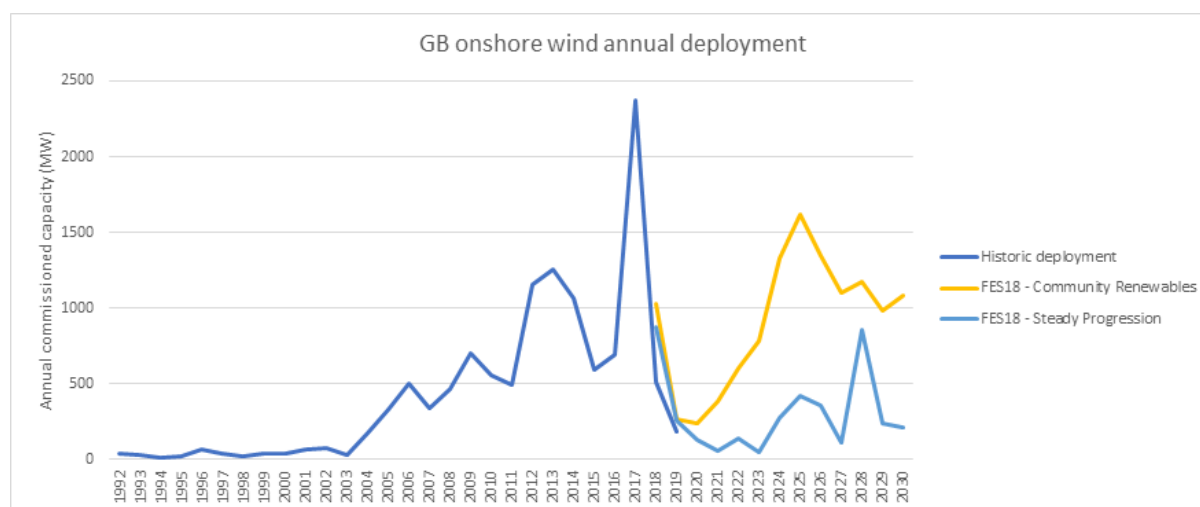
- Rate of renewables drop-out
- Offshore wind capacity cap and further impacts
- Sensitivity to BSUoS reform changes
- Carbon values used on emission projections

Rate of renewables drop-out

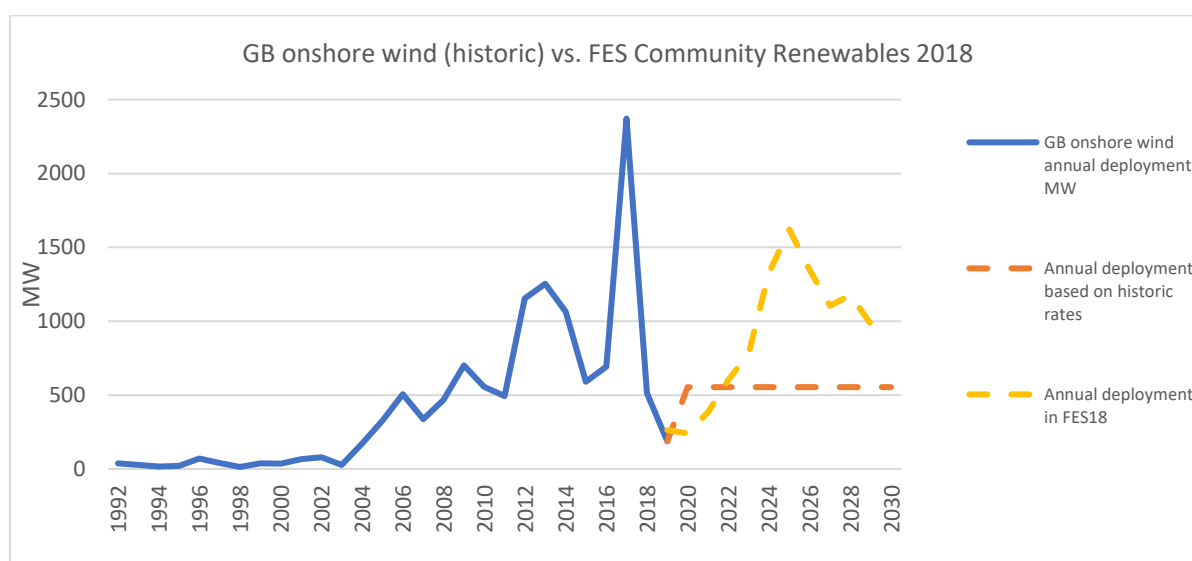
We welcome the assumption in the analysis that the level of renewables will be lower if grid connected solar and onshore wind remain unsupported by Contracts for Difference (CfD) as a result of the package of reforms under the TCR.

However, we do not believe that the use of 50% renewables drop-out rate is well-justified.

RenewableUK has a database of existing onshore projects. The data below suggests that 513MW of onshore wind was commissioned in 2018 – far less than the expected deployment under National Grid FES18 scenarios used in the modelling. In comparison, FES18 Community Renewables scenario suggests 1025MW of onshore is deployed in the same year, while FES Steady Progression suggests 877MW.

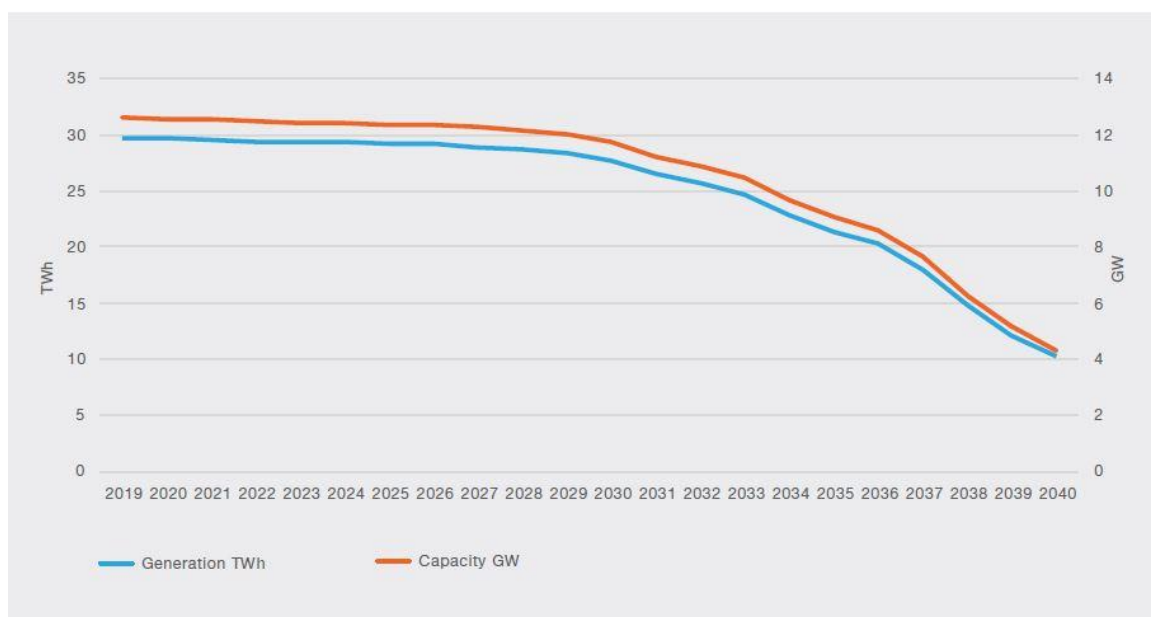


In order to match FES18 Community Renewable deployment rates for 2024-2029 onshore wind will need to deploy at an average rate of 1,316MW/year. That's significantly over the rate achieved in the peak "Renewables Obligation" years of 2010-2017 (1,022MW/year). This is also significantly higher than the projected annual deployment based on historic rates over the last two decades, approximately 611MW/year.



Furthermore, the rate of deployment would also be influenced by the rate of wind fleet decommissioning, which is likely to deepen the capacity gap left by onshore drop-out as

turbines reach the end of their planned life. Projections under National Grid FES18 scenarios do not take into account the age of the current wind fleet. RenewableUK has published analysis showing that more than 8GW of onshore wind could be retired over the next decades if no new policies are enacted to support replacing, or ‘repowering’, these older wind farms¹ (depicted in the chart below). The power supplied by onshore wind in the UK each year could decrease from 30TWh to 10TWh by 2040 if no onshore sites are built during that time. The implications of wind farm decommissioning should be given greater consideration as it would subsequently affect the redistribution of consumer benefits and system costs in the analysis.



Moreover, we would like to note that the analysis by Aurora quoted in the sensitivity modelling does not provide an estimate for both solar and onshore wind delay in deployment. As referenced in the consultation itself, Aurora predicted that TCR reforms ‘..would delay the subsidy-free buildout of solar by 2-5 years’. As such, this analysis does not forecast the impact of the reforms on onshore wind. In fact, even the most ambitious Aurora scenario predicts up to 5GW of subsidy-free onshore being built by 2030², without any consideration of the impact of the TCR reforms on onshore deployment.

Based on this evidence, we would encourage Ofgem to consider additional sensitivities including use of a higher drop-out rate.

Offshore wind capacity cap and further impacts

The overall approach in the modelling seems sensible, however there are likely to be a few limitations under the current policy framework.

As part of the Offshore Wind Sector Deal, the UK is committed to achieve up to 30GW of generating capacity by 2030³. The Committee on Climate Change (CCC) recent net-zero

¹ RenewableUK, ‘Onshore Wind: The UK’s Next Generation’, April 2019

² Aurora Energy Research, ‘The new investment landscape for renewables’, June 2018

³ BEIS, ‘Offshore Wind Sector Deal’, March 2019

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790950/BEIS_Offshore_Wind_Single_Pages_web_optimised.pdf

report states that 75GW of offshore wind to be deployed by 2050⁴. Furthermore, the latest Contracts for Difference auction round (AR3) introduced a capacity cap on deployment of technologies eligible to bid in the auction. The cap for AR3 was set to 6GW⁵ for delivery years 2023/24 and 2024/25. Any additional capacity required to be deployed would be a substantial increase in ambition for the industry.

We this acknowledge analysis was carried out before the results of AR3 were announced. AR3 cleared at a record low price of £39.65-£41.61/MWh, for windfarms delivered by 2025⁶. This is a significant drop in comparison to the modelled strike prices as part of the analysis (AR2 CfD strike prices for offshore wind). We note that the sensitivity modelling assumed £45/MWh strike price for onshore wind and solar. We would encourage Ofgem to consider building further sensitivities as part of future analysis, including using actual AR3 strike prices for offshore wind. This could have fundamental implications on the projected cost to the consumer as a result of TCR.

Additionally, changes to the Transmission Generation Residual (TGR) will also increase costs borne by offshore wind projects, making it more expensive than non-TGR offshore wind as well as more expensive than onshore wind and solar. Such impacts should be given greater consideration, especially with regard to the competitive position of all GB generation compared with interconnected generation, as it would subsequently affect the redistribution of consumer benefits and system costs in the analysis.

Sensitivity to BSUoS reform changes

We welcome the recognition in the assumptions that onshore wind and solar would be affected by the reform to BSUoS charges. However, it is not clear why only the Full BSUoS reform is being modelled and there is no scenario to recognise the impacts of partial BSUoS reform alongside reform to the TGR.

We also believe due consideration is yet to be given to the future of small generation discount after 2021. It is not clear if the modelling takes into account its removal after March 2021 (under the current minded-to proposal) and if its impact has been properly evaluated within the sensitivity analysis.

We trust that Ofgem will consider the BSUoS Task Force report, which enjoys support across industry, before making final decisions regarding BSUoS reforms in the TCR. Based on the conclusions of the BSUoS Taskforce, we consider that Ofgem should also assess the costs and benefits associated with an additional option for BSUoS reform, where BSUoS is levied entirely on final demand.

Carbon values used on emission projections

We fully support the use of consistent carbon values in the cost of carbon emissions for the TGR and BSUoS reform, as outlined in our previous response to the TCR open letter. We trust that the final impact assessment will take into account the alternative assumptions on

⁴ The Committee on Climate Change, 'Net Zero: The UK's contribution to stopping global warming', May 2019 <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>

⁵ BEIS, 'Contracts for Difference (CfD): Budget Notice for the third Allocation Round', May 2019 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/798885/Final_Budget_Note_AR3.pdf

⁶ BEIS, 'Contracts for Difference (CfD) Allocation Round 3: results', September 2019 <https://www.gov.uk/government/publications/contracts-for-difference-cfd-allocation-round-3-results>

carbon values on emissions projections. There is no detail in the sensitivity analysis on whether alternative values were used on gas prices and emissions intensity.

Refined residual charging proposals

The clarification that power imported from the grid and necessary for the operation of generation such as wind farms will be exempt is welcome.

We note that the refined approach to residual banding is more in line with National Grid ESO proposals. We remain opposed to the use of line loss factor classes (LLFC) methodology and support a view that residual charges could be more fairly applied per kW of capacity.

However, the refined proposal does not strike the right balance between simplicity (in implementation) and providing a long-term certainty to the market. It is likely that this approach would lead to material cost as a result of changes to billing, settlement and the need to future-proof the framework. Ofgem's own view is that migration to a common approach (agreed capacity) would be more desirable in the long term as smart meters, half hourly settlement and more access choices are fully rolled out. We fully agree with this view and consider that applying residual charges per KW of capacity would be a more equitable and less disruptive option for reform.

Should you have any questions on the above response, please do not hesitate to get in touch.

Yours Sincerely

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