

Hammar Hill Energy Limited

Office of Gas and Electricity Markets
10 South Colonnade,
Canary Wharf,
London, E14 4PU

23 August 2021

By e-mail to FutureChargingandAccess@ofgem.gov.uk

Dear Sir/Madam,

Ofgem Consultation on Access and Forward-looking Charges Significant Code Review

Thank you for the opportunity to respond to this consultation.

Skills & Experience

Operationally, I am involved in the Renewable Energy sector daily and have extensive commercial experience of a wide range of renewable energy projects featuring a variety of technologies including Wind, Marine, Hydro, District Heating Schemes, Solar, Energy Service Companies and Community Energy projects, and operate as a specialist in this niche area. I am based in Orkney, although I work on renewable projects though out the UK, and I sit on the financial due diligence panel of one of the main bank lenders to the independent energy sector and regularly undertake model audit review reports as part of the project finance due diligence process.

In August 2005 I was appointed to the Board of the European Marine Test Centre with specific responsibility for finance. Established in 2003, The European Marine Energy Centre (EMEC) is the first and only centre of its kind in the world to provide developers of both wave and tidal energy converters with purpose-built, accredited open-sea testing facilities. I left the board in 2000.

In 2006 I became involved as an investor and director of Orkney's largest privately-owned onshore wind farm - Hammar Hill Energy Limited. The project became operational in November 2010, and I took over as Chairman of the board in June 2014.

I am also an investor and director of an independent multidisciplinary consultancy practice specialising in the onshore wind energy sector.

Transmission Charging

Let me start by saying that many of my developer colleagues and myself have been involved over the past two decades in a raft of consultations, working groups and reports to ensure renewable energy generators in the Scottish islands have fair and equal access to the National Grid to ensure they can compete on a level playing field with projects on the GB mainland.

Orkney has been at the forefront of renewable energy development for over 30 years. With a history of land-based wind development at Bugar Hill, and the more recent arrival of wave

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and tidal development, hosted by EMEC, this has resulted in the concentration of unique expertise in the field of renewables, with its associated disciplines of environmental, civil, electrical, & mechanical engineering. This human resource, when combined with some of the best wind and marine resource in Britain, makes Orkney the perfect place for the commercial generation of electricity by means of renewable generation.

In 2013 the Baringa report for DECC and the Scottish government concluded that renewable generation from wind, wave and tidal in Orkney could make a significant contribution to the UK's renewable targets. Based on the evidence from the report and other sources, DECC concluded that Scottish islands warrant distinct treatment and a different level of support from other onshore projects to address the funding gap, and this formed the basis of a Scottish island strike price for onshore wind projects as part of the first EMR delivery plan.

The distribution network in Orkney is supplied from Thurso by two 33kV subsea cables. At present there is no transmission infrastructure on Orkney and under Ofgem's own analysis of the effect of the planned charging review reforms on small onshore wind generators in the north of Scotland there will be pronounced significant direct negative impacts.

In the meantime, there have been several recent reports warning that the existing and proposed transmission charging regime in the UK is putting renewable investment at risk by making it cheaper to import power from the continent than to generate power in the UK because of high UK charges, and that the differential can only get worse under the planned charging reforms.

The ability of wind power to reliably contribute energy to electricity networks is directly related to the characteristics of the wind resource. In Orkney, we have a world class resource and studies have shown that a large geographic spread of installed capacity can reduce wind power variability, smooth production, and increase security of supply as wind speeds experienced in different areas throughout the UK are not 100% correlated over time. The smoothing effect has been the focus of numerous studies. While the wind is blowing in Orkney, it is not necessarily doing so in the southeast of England. Generation in the north therefore provides security of supply to the national grid and provides value to the consumer through avoidance of capacity market payments.

Onshore wind is one of the lowest cost forms of new-build electricity generation in the UK. Delivering for businesses across the UK; creating jobs, economic growth, security of supply, promoting sustainability in local communities and in doing so delivering on the grand challenge of clean growth. Already considered the cheapest form of large scale new-build electricity generation, the sectors levelized cost of energy is forecast to continue to fall further over the next decade as innovation progresses.

There will be a staggering increase in demand for electricity as the country transitions to a low carbon economy and net zero. Transmission access in the north of Scotland, as well as uncertainty about future charges, are acting as a barrier to the commercial viability of renewable energy projects and, unless you have been living in a cave for the past two years, these proposals fly in the face of the Prime Minister's "levelling-up" agenda and net zero ambitions. There is strong evidence to suggest that the Government's and Ofgem's objectives in relation to climate change, and indeed renewables in general, are in danger of not being achieved as a direct result of the level of current and proposed changes to charging methodology.

I am aware that Ofgem are considering transitional arrangements and may delay implementation until they have greater clarity on the future role of network charges including whether “grandfathering” any aspects of current charging arrangements would be proportionate. While their minded to proposals provides a level of clarity regarding the direction of travel of proposed changes, they do not provide certainty, particularly, in view of their ongoing work on different implementation options and how the reforms align with their work on “Full Chain Flexibility.

Evidence shows that use of grid charges are already many times higher in the north of Scotland than elsewhere in GB. When the current charges are applied, the simple effect is that generators in Scotland pay significantly more for their use of the transmission system than those in the Midlands and are certainly not on a level playing field with generators in Southern England, who are subsidised for their use of the transmission system. Under Ofgem’s planned charging review reforms, small distribution connected projects in the north of Scotland will face the full impact of the proposed realignment of distribution and transmission charging and pay significantly more for their use of the transmission system than generators in England.

Against this background your proposal to introduce radical and discriminatory charging would result in small, distributed connected onshore wind generators in the north of Scotland facing unfair and unsustainably high TNUoS capacity charges while inefficient generators in the south of England are paid to generate. This is simply outrageous. Your proposals are extreme, will polarise renewable generation between England and Scotland and drive a coach and horses through the Union.

Cornwall’s network on a sunny summer’s day is constrained due to too much generation – yet embedded solar generation will continue to receive capacity related TNUoS credits while constrained and not generating, and generation in the north of Scotland, where the wind may be blowing and power potentially being exported to the national grid, will be paying excessive TNUoS charges. How can this be proportionate and economically justifiable?

If implemented as proposed, these proposals would amount to a terrible mistake which will destroy the financial viability of existing generators in the north of Scotland, and as your report identifies, impact on investment decisions for both new projects and repowering existing sites without, I consider, very little thought and analysis of the net zero opportunity. The design of your proposal is simply unimaginative, lacks strategic foresight and is neither rational nor proportionate. I believe there is no justification for charging some generation different to others simply based on geographic location. By doing so you will introduce significant differences in investment and operational signals between transmission and distributed generation located in Scotland and England which is discriminatory. The proposed approach would create a boundary distortion, which would lead to inefficient investment decisions about where generation should locate, and which cannot possibly lead to better use of network capacity.

Insufficient detail is available in the minded-to decision to carry out a detailed analysis of the financial impact of the proposals including grandfathering for existing projects. In the CBA attached to the minded-to decision there are rough tariffs, however these were heavily caveated as there are so many uncertainties. Under the Access and Forward-Looking Charges minded-to decision consultation process I have sought additional information from National Grid ESO. The simple answer is they also do not have enough information about how this would work in practice to be able to understand the tariff implications, so I am at a

loss to understand how Ofgem can arrive at these charging proposals when you do not appear to have the detailed information on which to base your decision. The CBA fails to demonstrate the economic case and does not provide a coherent argument to support the proposals. Consequently, your minded to decision lacks credibility.

While the detailed terms and conditions of the December 2021 (AR4) CfD auction round are not yet available, the auction is only a few months away, and there is little doubt that factoring in the proposed new charges into an auction bid may negatively impact the competitive outcome of the next Contracts for Difference for Remote Island Wind projects. As a direct consequence, this will undermine the needs case for the proposed new Orkney subsea transmission link. If you cannot supply the detailed tariff implications, how can you expect a developer to make an informed CfD bid factoring in these proposals when the National Grid experts do not understand the tariff implications themselves. Developers are not gamblers and we do not have an unhealthy appetite for risk. We need facts upon which to make sustainable investment decisions aligned to net zero.

On the eve of COP26 this is a complete shambles and contradicts recent Government policy announcements on net zero. Does the UK have a coherent, joined-up plan to reduce emissions? The lack of detailed information together with the uncertainty you are creating will indeed impact on investment decisions. You launched this review in 2018 and you are still kicking the can down the road. We need clarity, and we need it now, and well in advance of the December 2021 CfD auction. Please let me know your timetable for issuing detailed tariff information on which developers can make rational investment decisions.

I believe that we have a right to expect a thorough analysis and careful consideration of multiple options together with a sensitivity analysis of the potential outcomes. How can you seriously make these proposals in full awareness that the analysis undertaken by Ofgem in the CBA specifically excludes consideration of the impact the proposed changes will have on the Scottish islands? It appears to me that in December 2018 when you issued your open letter to developers highlighting potential future changes to electricity charging arrangements as part of the conditional minded to decision on the Orkney transmission project you had already decided the future direction of charging, and clearly understood the impact on generators in the north of Scotland and on Orkney and other Scottish islands where transmission links were planned. You allowed us to continue to invest and spend considerable time and resources progressing projects which were doomed from the outset. You have produced the current charging recommendations simply by focusing on the data which supports your thesis, and it appears to me that Ofgem's decision making process is deeply flawed and subject to confirmation bias.

Everyone is entitled to their own opinion, but not to their own facts. Your analysis simply sets aside and fails to consider the scale and significant impact which these proposals will have on economic development in the north of Scotland for decades to come.

Within a decade most onshore wind generation in the north of Scotland will reach the end of its design life, and due directly to Ofgem's proposed changes in grid charging, would be under threat of closure; repowering would not be financially viable, leaving stranded assets throughout the north.

Climate change is important but so are jobs and sustainable economic development. Projects will provide jobs and bring investment and economic development and community benefits to the islands. Community renewable schemes deliver a range of social and

economic benefits to local communities including increased autonomy, empowerment, and resilience by providing long term income and local control over finances, often in areas where there are few options for generating wealth.

The north of Scotland is currently a net exporter of power. Under your proposed reforms, power flows will reverse, particularly as electricity demand increases due to electrification of transport and heat, and under your scenario, the north of Scotland will become a net importer of power from inefficient renewable generation in England. This is particularly relevant in the north of Scotland where there is no gas grid and transport, and heat is dependent on oil. What is the cost to the consumer under that scenario? Who will pay for these transmission charges after you have destroyed the onshore renewable generation in the north of Scotland?

Consideration also requires to be given as to how the new charging regime would apply to generators in Orkney connected to the distribution grid through the Orkney RPZ Active Network Management system as they have non-firm connections subject to curtailment. If they were to be subjected to the full impact of the proposed TNUoS capacity charging regime then they would require full access to the UK grid. I note the mention of "grandfathering" rights for existing projects, although without detail it is not possible to comment further on this.

Policies and regulations which underpin electricity transmission charging should consider not just the location of consumers of energy, but also the location of the very best renewable resources to build out the projects that will take us further and faster towards net-zero. As a developer and investor, I utterly reject the integrity of your assertion that the benefits of the proposed change in TNUoS charging is sufficient to outweigh other factors relevant to decision making such as renewable resources (wind, waves & tide), landscape capacity and planning regimes. This is absolute nonsense. You offer no support for the plausibility of this statement. Is this simply an opinion or based on facts? If facts, where are the facts to support this assertion? During her recent visit to EMEC to see first-hand the potential that ocean energy offers to level up coastal and island areas, and to further the just transition as a nascent renewable energy industry Anne-Marie Trevelyan, UK minister for energy, clean growth, and climate change, said:

"The British coastline offers enormous potential for marine power to form part of our transition to a low carbon economy.

"It was a privilege to visit EMEC in Orkney to see first-hand the incredible work taking place to develop wave and tidal energy technology, and kick start an entire new renewables industry in the UK.

"Being an island nation means we are in the best position possible to reap the benefits of our natural, renewable resources to produce clean energy, helping us build back greener from the pandemic and reach our ambitious climate goals".

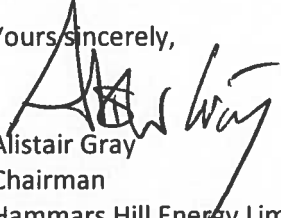
The solution for charging needs to be one that is simple and be guaranteed to bring forward increased renewable deployment through the implementation of a UK wide national uniform charge for the use of wider shared transmission assets which would provide a simple, clear, and transparent basis for charging that would be easily understood by all market participants.

All generators should pay the same rate for accessing the transmission system regardless of technology, size, or location. This would facilitate a 'level playing field' in the energy market.

The proposed model would also ensure that renewable energy is not the subject of discrimination in terms of charging, especially from more remote areas. We all pay National Insurance and have equal access to the NHS; it costs the same to post a letter or make a phone call from London as it does from Orkney, and we should all have equal access to the National Grid.

The SCR was scheduled to consult on a minded-to decision in spring 2020, so the publication of the SCR consultation in June 2021 is over a year late. With less than three months to go before world leaders meet in Glasgow one would have thought that all parts of government need to work together towards the same objective. Given the massive increase in electricity demand required as we transition to net zero, and the abundance of natural resource in the north of Scotland, and as identified in the CBA, your clear understanding of the catastrophic economic impact of your charging proposals, I am at a loss to understand why generation in the north of Scotland is being singled out for financial ruin. The biggest threat to the government's ambitious plans to accelerate investment in renewables is the uncertainty created by Ofgem's proposals to reform grid charges. Your proposals are simply incomprehensible given the UK's net zero ambitions. The ongoing uncertainty requires to be resolved immediately and without further delay.

Yours sincerely,



Alistair Gray
Chairman
Hammars Hill Energy Limited