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04 September 2020

To whom it may concern,

RIIO-2 Draft Determinations: Consultation Response

Scottish Renewables is the voice of Scotland's renewable energy industry, working to grow the sector and sustain its position at the forefront of the global clean energy transition. We represent around 260 organisations across the full range of renewable energy technologies in Scotland and around the world, ranging from energy suppliers, operators and manufacturers to small developers, installers, and community groups, as well as companies throughout the supply chain.

Renewable generation now accounts of 90% of Scotland's electricity supply[1], however achieving net-zero will require significant and consistent deployment of renewable energy as we prepare to decarbonise other sectors of our economy. National Grid's most recent Future Energy Scenarios[2] show that renewable capacity could more than double by 2030 and will require at least 3 GW of wind and 1.4 GW of solar to be built every year from now until 2050. Achieving this will require all parts of the energy system to align in delivering a net-zero ambition that provides best value for consumers.

In light of the COVID-19 pandemic and the significant impact on our economy, the Government has recognised the need to stimulate economic growth in a sustainable and resilient way. Clean infrastructure investment in renewable energy, storage, and grid modernisation has been identified as an area that can play an important role stimulating economic growth[3]. The Committee on Climate Change also highlighted in its Reducing UK Emissions Progress Report

[1] Scottish Energy Statistics Hub
[2] Future Energy Scenarios, National Grid ESO, July 2020
[3] https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf

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to Parliament[4] published in June 2020 that choices in the coming months must steer a recovery that drives vital new economic activity, accelerates our transition to net-zero and strengthens our resilience to the impacts of climate change.

By making the right decisions now we can ensure that RIIO-2 facilitates the journey to meet net-zero while delivering long-term value for money and a green economic recovery. We have strong concerns however that the proposed package of outputs, incentives, and uncertainty mechanisms significantly risks our ability to achieve this. In responding to the consultation, we have set out below the key issues that we believe must be addressed ahead of the Final Determinations in December 2020.

Scottish Renewables would be keen to engage further with this agenda and would be happy to discuss our response in more detail.

Yours sincerely,

Cara Dalziel

Policy Manager

Scottish Renewables

[4] Reducing UK Emissions: Progress Report to Parliament, Committee on Climate Change, June 2020

RIIO-2 Core Document

Impact on renewable generation deployment

Scotland's ability to reduce emissions by 75% by 2030 and meet net-zero by 2045 will be dependent on work undertaken by network companies in the next price control period. We have serious concerns that as the draft determinations stand there will be a significant delay to the renewable deployment needed to meet those targets.

The 2020s will need to see huge increases in the capacity of renewable generation as we prepare to cope with the demands of electrifying other sectors. For example, the most recent Future Energy Scenarios[5] from National Grid ESO shows that we will need to build at least 3GW of wind and 1.4GW of solar every year from now until 2050 to meet our climate ambitions. With government and industry ambitions to deploy 40GW of offshore wind by 2030, and the reintroduction of onshore wind (of which over 8GW is either already consented or in the planning process in Scotland[6]) to the Contracts for Difference (CfD) mechanism, it will be crucial to ensure that transmission network capacity keeps pace with developments and delivers connections and upgrades in a timely manner.

National Grid Electricity Transmission's initial analysis of the RIIO-2 draft determination indicates that it could put at risk the target to deploy 40GW of offshore wind by 2030. Approximately 8GW of offshore wind capacity is contingent on large network reinforcements that Ofgem has not provided the necessary funding for pre-construction activities (such as comprehensive optioneering, stakeholder engagement, procurement, and preparation for delivery) in baseline allowances**.** As we explain in more detail in our specific comments to the Electricity Transmission sector proposals, this funding is needed to allow these reinforcements to proceed with confidence and at a pace necessary to consent and deliver in time for 2030. The proposals to fund the construction of reinforcements will ultimately lead to delays for not only offshore wind but all renewable technologies due to the time required by Ofgem to assess the two stages of information provision they have specified.

Net-zero re-opener

Consultation Question Ref: Core Document Q21-23

The introduction of a net-zero re-opener is a positive step and uncertainty mechanisms are appropriate where policy is still being developed and requirements are still unknown. However,

[5] Future Energy Scenarios, National Grid ESO, July 2020
[6] Renewable Energy Planning Database, June 2020

we do have concerns that long, onerous processes will seriously risk delaying investment in vital infrastructure and ultimately jeopardise connecting new renewable generation needed to stay on track for net-zero. For example, in the RIIO-2 period an immense amount of work will be required in the development of offshore grid regime and decarbonisation of heat that cannot be delayed.

We support the intention set out in Ofgem's Decarbonisation Action Plan[7] to make network price controls flexible and adaptable to deliver the net-zero ambition. There is little clarity however on the design of the specific net-zero re-opener or justification for the allocated £10bn spend. Ofgem should clearly set out the materiality threshold, timings and assessment stages which would apply to any project which falls within the scope of the net-zero re-opener. We welcome more detail on the specific design of the net-zero re-opener in the run up to the final determination by the end of the year.

Establishing a Net-Zero Advisory Group to inform decisions and timing of big strategic investments is another positive step. However, the group is proposed to meet once every six months[8] which we do not believe is in line with Ofgem's ambition to make quick decisions regarding projects. It is our understanding that uncertainty mechanisms, in particular the net-zero re-opener, are the main tool to encourage anticipatory grid investment over the shorter, 5-year price control period. While we support the argument that decision-making needs to be underpinned with valid and justified evidence, we would encourage Ofgem to review the frequency of the Net-Zero Advisory Group meeting and recommend the group meets every two months. This will be particularly important if assessment is carried out on a case-by-case basis as suggested in the draft determination. We further note that the potential resource burden could be quite significant, and this should not act as a barrier to Ofgem's decision-making process.

Responding to policy changes

Consultation Question Ref: Core Document Q20

The 2020s will be a critical era on the pathway to net zero as the country moves to fully decarbonise heat, power, and transport. It is likely that new legislation, technologies, and ambitions will require networks and their funding stream to be flexible to ensure the best possible solutions for consumers. In this regard, we are already seeing areas where policy and legislation may be reviewed, for example the offshore grid regime and bringing forward the

[7] Decarbonisation Action Plan, Ofgem, February 2020
[8] Terms of Reference – Net Zero Advisory Group, Ofgem, August 2020

ban on the sale of new internal combustion engine (ICE) and diesel vehicles to 2032. It is important the RIIO-2 determinations do not restrict this wider ambition and change; therefore, we recommend that Ofgem re-assess their decision not to implement legislative policy change re-openers.

In this context, final Determinations should be aligned to the delivery of the Integrated Offshore Transmission review where a more strategic approach and anticipatory investment may have a wider role to play. Any delay to this work during the RIIO-2 price control period could risk the delivery of 75GW of offshore wind by 2050 and harm investor confidence in the UK offshore wind market.

Data and cost assessment model

It is our understanding that the data underpinning the Draft Determinations does not take account of the impact of the Covid-19 pandemic. The implementation of lockdown measures and the recession that has followed is likely to cause unforeseen cost increases. This must be addressed before the Final Determinations are published in December 2020. It has also been brought to our attention that the network companies believe there are a number of errors and inconsistencies within Ofgem's cost assessment model. If this is the case, we would wish to see this rectified ahead of the Final Determinations.

Electricity Transmission sector comments

Uncertainty Mechanisms

As we have noted in our comments on the proposed net-zero reopener, the current design of uncertainty mechanism processes seriously risk delaying investment. Placing greater emphasis on uncertainty mechanisms means that the design must be simplified and have greater levels of flexibility which allow projects to be delivered quickly.

One of our key concerns is how uncertainty mechanism processes align with CfD timelines. For example, the current Strategic Wider Works allows TOs to apply at any time, while a decision could be reached within 6 months. This is much more favourable to CfD timelines than the processes proposed for RIIO-2. With the correct alignment between uncertainty mechanisms, the CfD auction process has the ability to unlock private investment in energy infrastructure with long-term funding models that minimise the impact to consumers.

In addition, the pre-construction funding mechanism proposed presents a significant risk to delaying the connection of new projects. Implementing an ex-post adjustment places far greater risk on network operators as there is uncertainty over recovering the costs and this will

ultimately discourage project progression. We consider this to be contradictory to how uncertainty mechanisms are intended to work. Pre-construction work is a fundamental requirement for TOs to provide the evidence and certainty that Ofgem will look for in order to approve a scheme. We would welcome clarification as to how TOs are expected to provide sufficient certainty for projects that form part of the uncertainty mechanism in cases where pre-construction funding has been rejected. This is particularly pertinent for Medium Sized Investment Projects (£25-£100m) and Large Onshore Transmission Projects (greater than £100m) due to their scale.

Consultation question Ref: ETQ10

The Large Onshore Transmission Projects (LOTI) re-opener, which applies to reinforcements and grid upgrades greater than £100m, is proposed to replace the current Strategic Wider Works process. The current design and suggested timings could significantly delay decision making up to 30 months should Ofgem reach a decision based on Final Needs Case. This proposal risks misalignment with project delivery dates and could put the delivery of 40GW of offshore wind by 2030 at risk. The proposals should consider the CfD timelines where current determinations could delay projects connecting in mid-2020s by 2.5 - 5 years. We would suggest that timelines should be shortened to six months and allow consenting to run in parallel with the regulatory assessment. The outputs of National Grid ESO's Future Energy Scenarios and Networks Option Assessment should have sufficient weight to reduce the assessment timeline.

Consultation question Ref: ETQ13

We note that the Medium Sized Investment Project (MSIP) re-opener, which would enable major generation connections and other reinforcements between £25-£100m, will not apply until 2024. This fixed window means that TOs will have to carry significant financial risk to take forward MSIP projects or alternatively, trigger delays until funding has been secured. We believe that the fixed window at 2024 should be removed and Ofgem should commit to assessing MSIP applications within a six-month timeframe to avoid delays to connections.

We also have concerns over the proposed pre-set unit costs under the Volume Driver which automatically adjusts allowances to support new generator connections <£25m. We believe that the proposed unit costs are insufficient to fund new connections and question whether pre-set unit costs are reflective of the actual cost occurred. We would note that atypical connections that cost more than the unit rates will need to be funded through the MSIP, but only where the cost is at least double the volume driver pre-set unit costs. This means TOs would risk losing money for connections that do not meet this threshold, ultimately risking the

connection of new renewable generation. We would suggest that the pre-set unit rates should be reviewed and for atypical connections there should be no arbitrary threshold to determine eligibility for the MSIP.

Consultation question Ref: *SPTQ11*

A number of projects across the Draft Determinations have removed from baseline allowances that are Load-Related Expenditure (LRE). LRE projects are designed to cater for additional load and will therefore be included in bilateral connection agreements entered or being entered into with customers. This means they will therefore be scheduled to be constructed and completed in order to meet the contracted timescales.

We would note that infrastructure is vastly generation driven. For example, Scottish Power Transmission's proposed Branxton substation is required to hub the east coast HVDC and also a number of offshore wind connections. This proposal was rejected by Ofgem as it was felt it could be delivered through uncertainty mechanisms when the timing became more certain. However, pushing such projects toward the uncertainty mechanisms creates uncertainty for applicants and those parties with existing connection agreements. This is exacerbated by the current design of uncertainty mechanisms which are lacking in flexibility and have a lengthy approvals process. This increase in risk could in turn result in a negative impact on cost reduction and therefore competition. We would suggest that a full review is undertaken to consider restoring LRE projects to the baseline where this would reduce risk for connectees or review the design of uncertainty mechanisms as per our previous comments.

Incentives and driving customer improvements

We are concerned by the diminishing role of incentives within the Draft Determinations. As the proposals stand, penalties are three times greater than incentives with increasingly tougher targets than RIIO-1. We have concerns that without a sufficient incentive package network operators will be forced to put greater focus on complying purely to avoid penalty, rather than driving service improvements that that could bring real benefits to customers. We would also note that a number of bespoke incentives proposed by network companies have been rejected. This significantly deviates from the approach taken in RIIO-1 which has driven innovation and a customer focused environment. We believe that the proposed model of incentives will delay the ability of network companies to support the low carbon ambitions of UK consumers.

Consultation question Ref: STPQ5, SHETQ2, NGETQ4

All three TOs and the ESO proposed a number of ODIs relating to outage and constraint management that have been rejected by Ofgem. These proposals had strong stakeholder support and would provide real benefit to ensuring generators can continue to operate and deliver low-carbon electricity to consumers. There is a strong need for bespoke incentives to be put in place on TOs to optimise network outages and place greater consideration of system availability to generators. We note that OFTOs have specific incentives in place to ensure generator availability, whereas onshore TOs do not. While we are aware of STCP 11.4 is relatively new mechanism aimed at encouraging outage optimisation between TOs and the ESO, we are concerned that code development of both the Grid Code and STCP would need to be refined which would delay and real benefits to consumers throughout RIIO-2.

Examples exist where large generators have been switched off for up to 9 months with no recompense and no option to consider any alternatives, and where neither the TO or the SO take into account the additional operation and maintenance costs incurred by the generator or the loss of production. Generators, particularly windfarms, subject to lengthy outages endure abnormally long stand-down periods that can cause unpredictable operation once redeployed. Solutions such as placing incentives on TOs could help reduce these issues by reducing outage times thereby reducing generators' operation and maintenance costs, system balancing costs, improving generator reliability and therefore security. As no code change proposals have been brought forward by the industry yet we believe that any change to TOs current outage optimisation practices would not be implemented well into the mid-2020s. As such we see the need for a specific incentive to be in place for RIIO-2 and switched off later in the price control once the barriers within the codes have been addressed and changes implemented.

Consultation question Ref: NGETQ3

National Grid Electricity Transmission had proposed an incentive to accelerate low carbon connections to encourage flexible processes and shorter lead time for connections. We understand Ofgem's concerns regarding validation of the TOs genuine efforts to speed up connection delivery. We would strongly encourage any incentives or propositions directly linked to reducing carbon to be worked through to a positive solution. Validation could be provided either by the ESO with the connecting customer agreement in order to mitigate for the risk.

Network reliability

We note that a large proportion of the spending cuts made to business plans relate to Repair and Maintenance (R&M) and inspections allowance, as well as deferrals to critical asset replacement schemes. These cuts cause serious concerns around the impact on network reliability and resilience. Maintaining a reliability is vital to ensuring existing generators can continue to operate and deliver low-carbon electricity to consumers. The lockdown restrictions caused by the Covid-19 pandemic has shone a light on the importance of a reliable network in times of crisis. As we move towards electrifying other sectors, the reliance on our electricity networks will be even greater to ensure our electric vehicles can be charged and our homes can be heated.

It is our understanding that R&M and inspection budgets have been based on historical network data taken from RIIO-T1 in order to calculate average annual expenditure. This does not consider the expected significant growth of the electricity network by the end of RIIO-T2 as we prepare to ensure our electricity system is fit for net-zero. This causes serious concerns for network reliability as TOs will be required to inspect, maintain, and repair more infrastructure for less money. This approach also means that the R&M costs of infrastructure which commissioned and energised towards the end of RIIO-1 will not be fully accounted for in those calculations.

Asset health expenditure has also been reduced to around 70% from TOs proposals in the draft determinations and we question whether whole system costs were considered in this decision. For example, proposals from Scottish Hydro Electricity Transmission to upgrade infrastructure, such as transformers, which are reaching end of their operational life has been deferred until the next price control period. Relying on the 'do the minimum' approach such as refurbishments could mean that works need to be carried out every few years which is inefficient and will result in higher costs in the long-term. Each time an intervention takes place generators will also experience outages which will impact vital revenue schemes, disrupt communities with additional construction works and ultimately mean that consumers miss out on the benefits of the lowest cost form of electricity.

Digitalisation of the network

We are concerned by Ofgem's decision to reduce spending or reject TOs proposals to digitalise their network. Industry has worked alongside network companies to develop solutions and digitalisation strategies which are at risk of not being delivered as a result of Ofgem's decision. The drive towards net-zero requires better information, online mapping and different types of contracting, more efficient signalling to improve flexibility to ensure renewable generation can

play a part in this. Digitalisation should be able to progress at a reasonable pace so that renewables can play their full role in providing flexibility to the market, the benefits of which will be passed onto the consumers.

Electricity System Operator comments

The ESO has recently commenced assessment of the Integrated Offshore Transmission review. We encourage Ofgem to ensure appropriate funding is made available to the ESO to continue work in this area over the course of RIIO-2 in order to support offshore transmission development co-ordination under the enhanced NOA process.

Incentive framework

Consultation questions Ref: ESOQ1-8

We have strong reasons to believe that the current evaluative scheme is not clear about what success looks like and how it will be rewarded. As such, we are concerned that the two-year incentive scheme could undermine the ability to drive strong performance from the ESO if the link between business plan ambition and ex-post assessment is not strengthened. While it is true that an incentive scheme theoretically offers the potential for reward, the ex-post evaluative scheme makes any financial outcome unpredictable. Rewards and penalties in response to specific actions are unknown and unquantified. As ESO costs are not subject to sharing mechanism, placing more weight on performance-based, ex-post evaluation increases the risk of disallowance. There is a need for a refined up-front performance expectation and on-track delivery of ambition to mitigate for the risk of large financial penalty. For example, a refined up-front performance expectation could include additional boundaries between grading such as high or low score. We would be more supportive of a targeted incentive scheme with a clear definition of success to drive ESO to deliver benefits beyond baseline expectations as well as plan for the long term. This could provide a stronger link between ESO business plan ambition, deliverables, and final evaluation whist minimising risk-averse behaviour.

Metrics, performance measurement and regularly reported evidence

Consultation questions Ref: ESOQ7, ESOQ13, ESOQ18

In general, we welcome the approach to streamline performance measurement by reducing the number of metrics from 17 to 6. We do not agree with the proposed evaluation criteria and the particular addition of ‘value for money’ criteria. The ESO is incentivised to minimise the cost to consumers from its actions as a residual balancer of the power system. As such value

for money is reflected in all its activities and should be captured under each of the proposed criteria rather than on its own.

We recognise the requirement for monthly reported evidence to inform demonstration of plan benefits criteria. We see a need for a commitment to reporting of 'lost generation' (MWH) that existing generators will incur during future network upgrades. Network interruptions are sometimes unavoidable but there is currently no incentive to minimise disruption for generators when it does occur. The vast majority of new windfarm connections are 'non-standard' connections without redundancy which according to the rules permit the TOs to de-energise wind sites for unlimited time without any penalty. A regularly reported evidence on lost generation due to inefficient outages would incentivises the TOs to provide alternative solutions to enable generators to continue to export. With the expected growth of renewable generation in Scotland, there could be significant interruption to existing wind generators due to network upgrades. Therefore, we strongly feel there is a need to incentive Scottish TOs to optimise generation outages through a specific RIIO-2 incentive.

Innovation funding and IT ownership

Consultation question Ref: ESOQ30 and ESOQ31

We support the proposal for the ESO NIA funding to include projects which consider the challenges across the energy industry and develop innovation with third parties like universities and other network companies. We note that other network companies have access to 5-year innovation funding period as part of the price control. Under the draft determination the ESO will have access to £7.2 million of innovation funding over two years. As such we consider that a two-year innovation funding period may be a barrier to effective partnerships and risks bringing uncertainty for longer-term projects.

Consultation question Ref: ESOQ34 and ESOQ35

We agree with Ofgem's assessment regarding the transfer of IT ownership to the ESO. We are concerned that past underperformance and untimely delivery of commitments under the ESO Business Plan is due to the ESO inability to control the necessary IT upgrades.