RenewableUK
Greencoat House, Francis Street
London SW1P 1DH, United Kingdom

Tel: +44 (0)20 7901 3000
Fax: +44 (0)20 7901 3001

Web: www.renewable-uk.com
Email: info@renewable-uk.com

Date: 30th March 2012

Giuseppina Squicciarini, Mathieu Pearson
Ofgem
9 Millbank
London
SW1P 3GE

By e-mail: soincentive@ofgem.gov.uk

By e-mail: zoltan.zavody@renewableuk.com

Dear Sir/Madam,

RenewableUK consultation response REF 12/12
SYSTEM OPERATOR INCENTIVE SCHEMES FROM 2013: PRINCIPLES & POLICY

RenewableUK is the trade and professional body for the UK wind and marine renewables industries. Formed in 1978, and with over 660 corporate members, RenewableUK is the leading renewable energy trade association in the UK, representing the large majority of the UK's wind, wave, and tidal energy companies. The association's response aims to represent these industries, aided by the expertise and knowledge of our members.

Summary

With significant change in the GB generation profile and major investment in transmission infrastructure pending, the establishment of an SO incentive scheme that promotes the efficient balancing of the system and delivery of optimum transmission investments is essential. We agree that SO-TO interactions need to be appropriately incentivised, and we agree that the SO should play a full role in the sustainable energy system. In order for this to happen, we believe that financial incentives are required in relation to the accommodation of renewable energy. In particular, incentives are needed that encourage the SO:

- **to seek balancing services and ancillary services solutions that are suitable for increasing amounts of variable renewable generation**
- **to minimise whole-system costs, rather than just SO or even SO+TO costs, where burdens might otherwise be transferred onto others, e.g: generators**
- **to improve the accuracy of wind forecasts, and also to adapt balancing systems to enable the use of the most accurate, near-real time forecasts**

Introduction

RenewableUK welcomes this consultation on the System Operator incentive schemes. We agree that the SO should play a "full role in delivering and operating a sustainable energy system." Overall, this will only be achieved if the SO is provided with financial incentives that encourage it both to become more efficient (reduce costs) and to innovate (find new ways of accommodating increasing amounts of variable renewable generation).

We note the questions set out in the consultation, and believe these are best addressed through a look at the specific proposals in Appendix 4: Electricity Outputs and Output Incentives, i.e:

- Safety
- Environmental Impact
- Connections
- Reliability and availability
- Stakeholder satisfaction
- Balancing the system
- Information to the market
- Security of supply

These are taken in turn, with reference to the consultation questions.

Safety (question 3, 4, 6)

The consultation proposes not to introduce a separate SO incentive to maintain system voltage within specified limits, on the basis that this is already captured by RIIO-T1 measures and by the Health and Safety Executive.

RenewableUK believes there is a need to ensure that the incentives to maintain system voltage need to be set in the context of the evolving low-carbon and renewable generation profile of GB. In the absence of an incentive signal to the contrary, the SO may be tempted to pass elements of the management of GB voltage profile through to the generator community, either through more onerous operating conditions or by reducing access to the system.

RenewableUK believes that this is an issue for the development of the European Network Code for the Connection Requirements for Generators, currently under development by ENTSO-E with input from European Member State TSOs, including those of the UK.

It is important therefore that, in relation to voltage (and frequency) management, the SO incentives relate to the minimisation of whole-system costs, rather than just SO or even SO+TO costs. It is the whole-system cost that ultimately affects what the consumer will be paying on their bill.

Environmental Impact (question 4, 6, 7)

The case has already been made in the context of RIIO-T1 that the network companies have a fundamental part to play in the decarbonisation of the electricity system. Furthermore, the environmental benefit of reducing the carbon content of electricity tenfold by 2030 far outweighs the environmental benefit of reducing the directly attributable business carbon footprint of network companies.

For these two reasons, RenewableUK welcomes a broad environmental measure on how the SO is contributing to the delivery of a low carbon economy. However, for the same reasons, we believe that there is a need for a financial incentive linked to progress with the decarbonisation of electricity.

We struggle to see why there would be a financial incentive on the SO to support reductions in transmission losses, but no financial incentive to support wider decarbonisation activity. Indeed, in the context of sometimes distant renewable energy resources, a transmission losses incentive may work against the connection of renewable generation. This needs to be avoided. An SO should be incentivised to sweat its assets safely, not to keep them cool.

Connections (question 4, 6)

The consultation proposes to leave connections incentives to the RIIO-T1 regime. It should be noted that, with the proliferation and diversification of smaller generation plant, there is increasing “user choice” in the security and firmness of connections. This is something that requires appropriate co-ordination and customer service, which might be incorporated into the mix of incentives.

We pick up some of the other issues around connections in subsequent sections.

Reliability and Availability (question 4, 6)

The consultation discusses incentives on the SO-TO interaction. RenewableUK fully agrees that it is important to minimise the joint cost of running and operating the system, and avoid the TOs taking decisions that may lead to significant SO costs. We wonder if a reputational incentive is sufficient. RenewableUK requests that Ofgem at least establishes an expectation that more stringent measures would be introduced in the event of demonstrable underperformance.

Stakeholder Satisfaction (question 4, 6, 7)

The consultation proposes a financial incentive on stakeholder satisfaction. RenewableUK has input in the context of the RIIO-T1 process. We believe it is important to differentiate between categories of stakeholder. For instance, there may be some large generators with healthy, long-term relationships with the SO and TOs. But, if there is an increasing need for smaller generators to be connected, and to participate in the provision of Balancing Services, then their needs and priorities need fully to be reflected in customer satisfaction surveys.

By providing good service, including explaining how to participate more pro-actively in the balancing services and ancillary services markets, the SO will generate more competition and innovation in these markets, thereby bringing costs down. Stakeholder satisfaction surveys will reveal the extent to which new players are being encouraged to enter the field.

We note also that there will be some aborted projects, and it is important to secure feedback from these.

Balancing the System (question 4, 6, 7, 8)

The consultation proposes reputational incentives for balancing generation and demand; and for system frequency.

RenewableUK believes there are wider considerations. As with our arguments above regarding voltage stability, the SO may consider that a simple means of maintaining system balance would be to adopt a conservative approach whereby the status quo in

balancing arrangements is preserved, and whereby any additional system requirements are passed on to generators rather than resolved centrally.

However, this does not constitute "playing a full role" in delivering and operating a sustainable energy system. – The SO should be encouraged constantly to innovate and explore the boundaries, within the limits of a properly functioning energy system.

This again is why we believe there is a need for an environmental, financially impactful incentive (see above) that rewards the SO for success in ongoing decarbonisation of the electricity system.

There are a number of specific areas in relation to variable renewable energy where the SO should be encouraged to be pro-active:

- securing the most accurate wind and wind generation forecasts possible
- understanding variations in forecasting accuracy according to time of forecast (ahead of real time), wind output, weather categories, market conditions, etc.
- adapting balancing arrangements to reflect the timing of the most accurate forecasting – for example, moving reserve procurement closer to real time[1]
- treating variations in wind output, e.g: high wind cut-out, consistently with other, conventional phenomena, i.e: variations in demand and in thermal plant output[2]
- ensuring that high-value, clean energy that is generated is constrained off as little as possible, potentially through a fundamental review of the Balancing Mechanism
- seeking innovative, best-value, whole-system solutions for system stability, rather than passing conventional connection requirements onto all generators regardless of their inherent characteristics
- representing the above considerations within their European umbrella organisation, ENTSO-E, when developing Network Codes and Ten Year Development Plans

In short, RenewableUK is looking for appropriate treatment of variable renewable technologies, thus securing reductions not just narrowly in terms of the SO, but more broadly in terms of whole-system costs.

[1] It is worth noting that OCGT plant may have warm-up times of approximately one hour, rather than the four hours that are currently used for procuring reserve.

Please find attached RenewableUK's submission into National Grid's "Operating the System in 2020" consultation, for further detail on issues around wind forecasting.

Information to the Market (question 4, 6, 8)

RenewableUK agrees that there are great benefits to the timely provision of data, both on general balancing services, and on renewable generation. This will facilitate the operation of a more informed market, with lower balancing costs.

RenewbaleUK also welcomes the proposal to incentivise the timely provision of information on the SO's website. Data loss and poor data visibility are issues that not only affect the SO's statistics for assessing the contribution and profile of renewable generation output; they also hamper public acceptance and confidence in renewable generation technologies.

For these reasons, RenewableUK welcomes a financial incentive on the SO both to improve wind forecasting and to place the resulting information in the public domain in a timely and continuous manner.

Security of Supply (question 6)

We note that there is no proposal for a security of supply incentive at the current time.

Thank you again for the opportunity to input. If you require further information or clarification, please do not hesitate to ask.

Yours sincerely,

Zoltan Zavody
Grid Policy Team

Enc: RenewableUK consultation response: Operating the System in 2020

[2] RenewableUK is concerned at Ofgem's suggestion that the frequency impact of high wind cut-out might be fundamentally different to that of rapid changes in demand. The rates of change in demand on weekday mornings and early evenings exceed those that might be expected from high wind cut-out, the only difference being that the SO has learnt over the years how to handle the former.

Annex: Questions answered within RenewableUK consultation response

Question 3: Do you consider that our proposals regarding SO-TO interactions provide the SOs with sufficient incentive to consider interactions with the TO in a longer-term context?

Question 4: Do you agree with our minded to position on SO outputs and the interactions with SO and TO outputs?

Question 6: Do you agree with our views on incentivising SO outputs?

Question 7: What areas, in addition to DSR, should a broad environmental output cover? What is your view on having a financial incentive on NGET?

Question 8: What is your view on having a financial output incentive on the accuracy of NGET's forecast of wind generation and the timeliness and availability of that information on its website?