



Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

Matt Wieckowski
Department of Energy and Climate Change
4th Floor, Area D
3 Whitehall Place
London
SW1A 2AW

DECC.capacity.mechanism@decc.gsi.gov.uk

04 October 2011

Dear Matt

DECC Consultation on possible models for a Capacity Mechanism - Response by Highlands and Islands Enterprise

1. Highlands and Islands Enterprise (HIE) is the Scottish Government's agency responsible for economic and community development across the northern half of Scotland and the islands.
2. HIE along with its local partners: the democratically elected local authorities covering the north of Scotland and the Islands: Shetland Islands Council, Orkney Islands Council, Comhairle nan Eilean Siar, Highland Council, Argyll & Bute Council and Moray Council have, for a number of years, been making representations to key participants on behalf of industry to influence the way in which renewables are incentivised and grid construction is triggered, underwritten then accessed and charged for in the region. We are working closely with Scottish Government in relation to a wide range of regulatory issues and are supporting its efforts to challenge barriers currently blocking renewables development across Scotland. Our response to this consultation is further strengthened by the support of Community Energy Scotland, a charitable organisation that supports hundreds of community scale renewable projects in Scotland. Community Energy Scotland echoes the views laid out in this response that the incentivisation of demand response and storage is crucial to enabling full utilisation of the renewable resources of the UK, securing local and national energy supply and maximising efficient use and distribution of energy.
3. Renewable energy resources in the Highlands and Islands of Scotland constitute the greatest concentration of potentially exploitable renewable energy resources in the UK. Indeed, the area has a long association with the production of renewable electricity given the existence of much of Scotland's large scale hydro which has contributed to the UK's electricity generation for a number of decades, producing the most cost-efficient power in the country. This would not have happened without political and monetary support and commitment for its (then) ambitious construction programme.
4. The region is also home to some of Europe's strongest sustained wind regimes along with some of the world's best wave and tidal regimes and is well placed to contribute to UK and European carbon reduction and renewable electricity generation targets *if* a favourable policy environment can

be developed/maintained and key regulatory barriers can be effectively addressed to facilitate deployment of renewable technologies. The Highlands and Islands are also well placed to contribute to the regulatory objective of security of supply by facilitating the deployment of a geographically dispersed, range of technologies which also makes economic sense in a wider context.

5. HIE and its local authority partners welcome the opportunity to respond to DECC's consultation on options for a Capacity Mechanism. Above we have highlighted our interest in seeing renewable electricity generation making a positive contribution to our region. In our original response in March to DECC's original Electricity Market Reform (EMR) consultation we provided comments on DECC's original proposals for a Capacity Mechanism. HIE agreed with DECC on the need to improve incentives for flexible response, complementing variable output renewables, but expressed disappointment that your original proposals did not – as we saw it – offer substantive reform.
6. Our original response highlighted the importance we saw in a Capacity Mechanism addressing interconnection and demand side response (DSR), and we urged DECC to consider market-based measures which would reward the long-term security of supply value of interconnection, DSR and storage as well as flexible generating plant.
7. We are therefore pleased to see that following a review of consultation responses, DECC has been prepared to review its thinking on options for a Capacity Mechanism and in particular to develop further options for Reliability or Capacity Markets.
8. We also think it is very helpful that DECC has clarified the aspect of security of supply (i.e. not diversification of supply or operational security, but resource adequacy) that it wants to see a Capacity Mechanism tackle. We agree with DECC's focus on resource adequacy. We are also aware, through our discussions with the UK and Scottish Governments, that DECC is also looking more closely at system balancing. Elements of this response may also be relevant for the DECC team responsible for system balancing arrangements, and where appropriate we would ask that you forward on concerns raised to this team.
9. Also, we would like to note that we welcome the fact that DECC explicitly states in its consultation that it wants to see not just traditional power stations but also other non-generation technologies and responses being eligible for a Capacity Mechanism, and that one criteria for which mechanism you select is how it can incentivise such non-generation elements. This also accords to the views set out by HIE in its initial response.
10. Related to this, we trust that DECC is aware of significant expertise in the Highlands and Islands about how to manage our networks and generation in a more active manner than is common across the wider GB market. Ofgem, SHETL, SHEPD, local authorities and developers have worked closely across the last few years to look at ways to actively manage a constrained distribution and transmission network. Particularly good examples of this can be found in the Orkney and Shetland Islands. While this work is of most relevance to Ofgem, and DECC colleagues responsible for policy relating to transmission and distribution, we would want to stress the importance that any resulting Capacity Mechanism will work alongside and catalyse wider

industry and regulatory moves to actively manage parts of the network with high constraints and significant levels of renewable electricity generation.

11. Following on from the above, based on the options set out in your consultation document **we see that the best mechanism to support interconnection, DSR and storage alongside flexible plant would be a market-wide mechanism**. However, more clarity is required on the purpose of a capacity mechanism before it can be introduced. If it is for the reasons we outline above then we do not have a preference between whether this market-wide mechanism would be best established as a Reliability Market (with penalties to be fixed by the market) or an Administrative Capacity Market (with penalties fixed by an administrator).
12. Our primary interests in this consultation are (a) supporting the right conditions so that the deployment of renewable electricity generation across the Highlands and Islands is successful and brings economic benefit to the area, and (b) ensuring that any chosen Capacity Mechanism is structured in a way that companies across the Highlands & Islands can make use of it either as market participants or as bidders into any targeted Strategic Reserve.
13. So that a Capacity Mechanism will make a positive difference in the Highlands and Islands, an important principle is that it will work at different scales across GB. Concerns of resource adequacy in the Highlands and Islands might be different to GB wide concerns. We see that a market-wide mechanism would better incentivise a more diverse set of responses and therefore work at different levels and across different parts of GB. This includes a region such as the Highlands and Islands in which electricity generation is a significant growing element of our economy, but also where the challenges of providing reliable electricity to a customer base – which is variable and dispersed and spread across remote mainland and island locations - are many.
14. With high penetration of renewable electricity, the Highlands and Islands will primarily be exporting capacity to the rest of Scotland and England. We understand that it does not necessarily follow that capacity that is able to secure the resource adequacy of this generation also be located in the Highlands and Islands. However, it would seem appropriate that some of this capacity was located within the same region, should it need to be called on to meet local resource adequacy concerns related to local electricity demand.
15. We are also concerned that use of a Strategic Reserve would likely give preference to either large scale generation or large energy users located outwith the Highlands and Islands area. Most existing and anticipated generation within the Highlands and Islands is renewable electricity, and in comparison with the wider GB economy there are fewer significant electricity users. Our fear is that companies across the Highlands and Islands might be less able to compete in, and benefit

from, bidding into any targeted mechanism, which would act as a further economic barrier to ensuring continued prosperity and competitiveness of our regional economy.

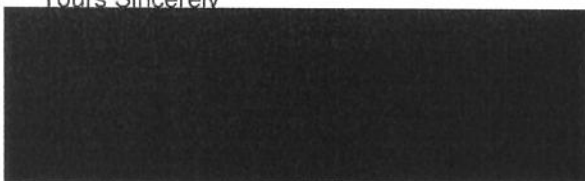
16. However, if a Strategic Reserve is chosen, we would ask that it be established so that locational factors can be taken into account. While highest demand is in SE England, and any capacity mechanism would need to prioritise ensuring resource adequacy for customers across the whole of GB, there will be times when Scotland, and the Highlands and Islands in particular will suffer from a lack of resource adequacy. Any Strategic Reserve would therefore need to be located so that could meet the needs of electricity customers within the Highlands and Islands, as well as those across the rest of GB.
17. On the issue of interactions between a Capacity Mechanism and the proposed FiT CfD (**Question 21**), we agree that this is a critical issue. Making sure that a Capacity Mechanism and a FiT CfD work well alongside each other will be complex, but we restrict our comments on this to highlight three issues we see as particularly relevant:
 - a. As noted above, we are aware of interest from renewable developers – particularly wind farm developers – in developing hydrogen storage alongside wind farms to help deal with constraints, non-firm connection agreements and balancing issues. The FiT CfD will likely restrict support for hydrogen in the same way the RO does. However, it ought to be possible to design a Capacity Mechanism to incentivise hydrogen storage and generation, because finding market approaches that can incentivise such development will be of overall benefit to the effective operation of the GB market in the long term.
 - b. Use of biomass for electricity and heat generation is of growing importance for large parts of the Highlands and Islands. We think there is merit in DECC considering how Biomass CHP stations could participate, not least because CHP sites have some flexibility in how they use plant to generate relative proportions of heat and electricity. Correctly done this would act as a specialised form of DSR, with CHP operators choosing to forgo production of heat energy and generate additional electricity for supply into a Capacity Market.
 - c. SSE, Vattenfall and others are looking at options for connecting the GB and Norwegian markets (a significant reason is to provide balancing between high levels of wind generation in GB and high levels of hydro power and storage in Norway). Clearly mechanisms do not yet exist to allow “green” electricity generated outside of GB to claim support (such as ROCs) in GB. Equally though, a situation must be avoided where non-GB electricity that may be claiming support via green-tariffs from its

own country is automatically barred from participating in a Capacity Market.

18. One relevant issue not stressed in the consultation but which we see as relevant is ongoing public confidence in the energy market. DECC will be aware of increasing publicity surrounding the costs of wind (for constraints, balancing etc). Ongoing public support for renewables is important to a region like the Highlands & Islands. We see that a market-wide approach will be much more visible than a more targeted approach, and therefore help to maintain confidence of the general public at the effective operation of the energy market. Increased awareness may better counter the arguments of those who say that renewables – and particularly wind - are unreliable, largely because they do not see that technical and market approaches are in place to manage any intermittency or availability challenges that are unavoidable but not insurmountable.
19. Finally, we would wish to note that should DECC be unable to resolve complexities in the design of any Capacity Market – either in developing a Strategic Reserve that is demonstrably additional to current arrangements, or in developing a Market-wide mechanism that is demonstrably effective – then better than pressing ahead would be to decide to not implement any mechanism, and instead for DECC to work with Ofgem, the System Operator and industry to improve existing mechanisms which have proved successful to-date in bring security of supply.

I hope you find our comments useful and that they will be taken into consideration as part of the consultation process. Please don't hesitate to contact me should you require any further information on the points raised.

Yours Sincerely



Director - Energy and Low Carbon
Highlands and Islands Enterprise

In partnership with:
Shetland Islands Council
Orkney Islands Council
Comhairle nan Eilean Siar
Highland Council
Argyll & Bute Council
Moray Council
Community Energy Scotland

