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The Scottish Government
Riaghaltas na h-Alba

LEGACY 2014
XX COMMONWEALTH GAMES

Murdo Fraser MSP
Convener
Economy, Energy and Tourism Committee
Room T2.60
The Scottish Parliament
Edinburgh
EH99 1SP

December 2015

Dear Murdo,

I am responding to the report the Economy, Energy and Tourism Committee published on 26 October: *Plugged-in Switched-on Charged-up: Ensuring Scotland's Energy Security.* I have considered the Committee's conclusions and now provide the Scottish Government's response, enclosed as an annex to this letter.

The Committee's report was produced against a backdrop of raised interest in energy security linked to shrinking spare capacity margins across the GB electricity system and, in particular, concerns for the consequences for Scotland of losing future power generation at Longannet power station in 2016.

I commend the Committee for the depth and thoroughness of its inquiry and for the great breadth and high quality of the evidence taken.

The Committee's report covers broad terrain – ranging across transmission charges, demand reduction, district heating, smart meters, capacity markets, system planning, storage, island connections, consumer engagement and fuel poverty – and makes a balanced assessment of the state of play. I was pleased to read the Committee's support for the joint work of the Scottish and UK Governments to advance grid connections to the Northern and Western Isles, and I appreciate the Committee's support for establishing a new intergovernmental group to look at energy storage solutions to aid system flexibility.

However, my appraisal of energy security and surrounding policy is much less sanguine than the view presented in the report. As Energy Minister for Scotland I am deeply perturbed by the huge uncertainty that shrouds all UK energy policy, but particularly arrangements for new clean baseload capacity, and by recent events that typify the growing scarcity of electricity and expose a worrying absence of rationality and foresight in UK policy-making.

For example, National Grid's most up-to-date *Winter Outlook Report* (published on 15 October) shows the risk of blackouts this winter is the highest since 2007/08. Without these new and largely untried contingency services the expected GB capacity margin for this winter would be only 1.2 per cent – down from 4.1 per cent last winter.

More recently still, on Wednesday 4 November National Grid issued a 'Notification of Inadequate System Margin'. This warning was issued following a series of power plant failures that contributed to a 500 megawatt shortfall in reserve capacity (a quantity enough to power 400,000 homes). In response to this the system operator was forced to purchase additional generation and pay commercial power users to reduce their consumption. Prices in the wholesale electricity market that day spiked very markedly for a time – reportedly to £2,500 per megawatt hour or fifty times their normal level.

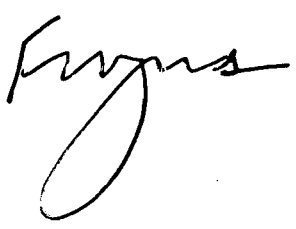
Margin warnings of this kind have been rare events in recent years (I believe only two have occurred since 2009) but their frequency is bound to increase as spare margins of electricity dwindle still further this winter and next. The outlook for winter 2016/17 – following the planned closure of Longannet and a combined loss of some five gigawatts of coal-fired capacity across Britain – is a huge concern given the ageing nature of much UK capacity and the fact that investment in new replacement capacity is stalled.

In this context and in light of Amber Rudd's recent leaked letter to UK Cabinet colleagues that suggests her Government is not on track to meet its legally-binding 2020 targets for renewable energy, the recent decision of the UK Government to pull funding for new carbon capture and storage (CCS) technology is utterly perplexing. With CCS Scotland has the potential to be a world leader in a technology which can remove most of the climate harmful emissions from both coal and gas power generation.

In this and other areas, the UK Government has the ability to design mechanisms to support the deployment of clean capacity and storage options to enhance energy security and deliver value for consumers. However, as we have seen with renewables and now CCS, UK energy policy is not providing the certainty required by investors to unlock the necessary investment. Scotland is the ideal base for the development of a range of energy generation and storage technologies but their development requires urgent reconsideration of the current direction of travel of UK energy policy.

I note the Committee's final conclusion highlights the need for "clear and accountable decision-making, and coherent long-term planning" in energy policy and indicates the Committee looks forward to "hearing directly from Ms Rudd on her government's policies as they impact on security of supply in Scotland". Given where reserved responsibilities lie, I would strongly encourage the Committee to reflect on recent developments and seek early engagement with the UK Energy Secretary on the purpose and effect of recent UK Government action on energy.

Yours sincerely



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ANNEX

The Scottish Government's Response to the Economy, Energy and Tourism Committee's 8th Report, 2015 (Session 4): *Plugged-in Switched-on Charged-up: Ensuring Scotland's Energy Security*

Paragraph 143: How much do consumers value reliability? How many of us would use storage? How ready are we to be flexible in our energy use? It would seem that nobody really knows. The Committee therefore asks the Scottish Government – ideally in conjunction with Ofgem – to look more closely at demand-side response; and, having heard the suggestion made by Malcolm Keay and WWF Scotland, we recommend that it produces as a priority a demand reduction strategy, either as part of a wider and revised document (the Electricity Generation Policy Statement for example) or a strategy in its own right.

Scottish Government's response:

On 17 September, Energy Minister Fergus Ewing announced to Parliament plans to develop a new, overarching, energy strategy for Scotland. The aim of which is to create a firm, long-term basis for energy investment in Scotland, and to support the next stage of Scottish energy transition to 2030 and beyond. The planned strategy will also help to optimise the benefits of energy transition for Scotland's communities, consumers and businesses; drawing on Scotland's significant energy resources and expertise.

The Scottish Government's new energy strategy will take a whole system view, including demand-side response as part of a holistic approach alongside energy efficiency (for example, Scotland's Energy Efficiency Programme), energy storage, local and community energy systems, transport and heat demand.

The Scottish Government will engage a wide range of experts to inform the development of the energy strategy including the Scottish Energy Advisory Board, which is co-chaired by the First Minister and Professor Sir Jim McDonald. Ofgem's ongoing work on system flexibility and National Grid's proposals under its Power Responsive campaign[1] will inform development of the Scottish Government's plans in relation to demand-side response.

The Energy Minister will be pleased to update the Committee on progress in developing the Scottish Government's energy strategy over the course of next year. At this stage, Ministers expect to link publication of the energy strategy with publication of the third Report on Policy and Proposals, required by the Climate Change (Scotland) Act, which is expected to be published next year. Such linkage would make explicit the connection between the long-term decarbonisation of the Scottish economy and Scotland's energy strategy.

[1] See National Grid's website: http://www.powerresponsive.com/

Paragraph 144: Such a strategy would include options for new powers on energy efficiency programmes that are due to be devolved, including those in relation to private housing and non-residential buildings. The Committee also invites the Scottish Government to consider the following elements: a detailed implementation plan for delivery of the energy efficiency National Infrastructure Priority; new targets for installation of local, household and community energy systems; assessment of pilot community schemes – such as the Morayshire example referred to by witnesses – and the provision of financial and in-kind government support for similar projects across the country; and development of policy assessment tools to assist in understanding the impact of policies across all areas of devolved responsibility on energy demand and not just electricity.

Scottish Government's response:

Energy efficiency is a principal priority for the Scottish Government and has been designated a National Infrastructure Priority in recognition of its importance to the Government's objectives. The cornerstone of this will be Scotland's Energy Efficiency Programme which will provide an offer of support to buildings across Scotland – domestic and non-domestic – to improve their energy efficiency rating over a period of 15 to 20 years.

The detail of the programme is being developed and over the next two years the Government will be working with stakeholders, piloting new approaches with local authorities and other delivery bodies, and undertaking further analysis to understand what is required and what is possible, before launching the new programme in 2018, after new powers over energy efficiency have been devolved to the Scottish Parliament.

Paragraph 145: Specifically on the subject of smart meters, a UK-wide initiative, the Committee welcomes progress, but – in light of evidence heard during our inquiry suggesting a less than fully committed approach – we believe a greater input and lead from government will be necessary if the full potential of the scheme is to be achieved. Accordingly we ask the UK Government to clarify how it intends to optimise outcomes from the consumer and demand-side perspectives and we also seek the views of the Scottish Government on the matter.

Scottish Government's response:

The Scottish Government supports the stated aims of the smart meter programme – for example, in boosting consumer empowerment – but has significant concerns about the implementation of the roll-out of smart meters to homes and businesses.

The Scottish Government is not alone in holding such concerns. Criticisms of the programme have been made by the National Audit Office in a report of June 2014 and by the Westminster Energy and Climate Change Committee in July 2015. A number of stakeholders have raised points of concern directly with Scottish Minsters. These concerns include but are not limited to the following matters:

- Meters being installed currently which are not the highest specification in terms of function and security (SMETS 1 versus SMETS 2) – meaning that customers who receive out-dated meters may find it relatively more difficult to switch supplier;
- Delays by the Data and Communications Company, who will provide the communications platform for the transmission of smart meter data and messages,

are exacerbating problems with the roll-out so that more SMETS 1 meters than was intended will be installed thereby increasing the costs of the programme;

- There is clear risk that those who do not receive smart meters, whether for technical reasons or because they refuse them, may face higher bills. An uneven take-up of smart meters may present a particular risk that pensioners (and other disadvantaged groups) are forced subsequently to pay more for energy – a situation which would be wholly unacceptable.

The costs and benefits of the smart meter programme anticipated in the Department of Energy and Climate Change's (DECC) impact assessment deserve huge scepticism due to the delays that have occurred and due to some practicalities of the scheme not being fully considered in the modelling and changes in the energy market. The Energy Minister has called for DECC's impact assessment to be re-run and updated projections published.

The Scottish Government continues to press the UK Government to encourage the installation of the most up-to-date smart meter technology in order to minimise adverse impacts of earlier technology. The most vulnerable consumers are the ones most in need of a smart energy solutions so particular caution must be exercised to ensure that the roll-out is designed with their needs in mind.

The Energy Minister raised the Scottish Government's concerns in a conversation with the UK Energy Minister, Lord Bourne, on 22 July 2015. The Scottish Government will continue to press the UK Government to ensure that the smart meter programme is delivered at the lowest possible cost to the greatest number of Scottish consumers whilst enhancing the benefits to the most vulnerable members of society and those at risk of fuel poverty.

Paragraph 146: Relevant to DSR, provisions in the Scotland Bill, once implemented, will enable the Scottish Government to design new energy efficiency programmes and consider replacement of existing ones. The Committee will consider planned Scottish Government activity, including the Minister's desire to take forward district heating, when we conduct our budgetary scrutiny for 2016-17. In the meantime, we ask the Scottish Government to set out those plans for progressing with district heating.

Scottish Government's response:

In 2012, the Expert Commission on District Heating[2], convened by the Energy Minister, reported to the Scottish Government with a range of recommendations to accelerate the uptake of district heating across Scotland. The Scottish Government District Heating Action Plan[3] published in June 2013 set out the actions the Government proposed to take in response to the Expert Commission's recommendations to accelerate the uptake of district heating in Scotland.

Over the last two years the Scottish Government has built on these actions and Scotland-wide support for district heating projects is now provided by:

[2] See the report of the Expert Commission on District Heating: http://www.gov.scot/Topics/Business-Industry/Energy/Energy-sources/19185/Heat/ExpertCommission

[3] See District Heating Action Plan; Response To The Expert Commission On District Heating: http://www.gov.scot/Publications/2013/06/7473

- The Heat Network Partnership that offers early stage advice and feasibility support (http://www.districtheatingscotland.com/content/district-heating-scotland);
- The Low Carbon Transition programme in terms of development support to investment grade proposals (http://www.gov.scot/Topics/Business-Industry/Energy/Action/lowcarbon/LCITP/WSHP);
- Capital funding is provided the District Heating Loan Fund, the total available between 2014 and 2016 is £8 million (http://www.energysavingtrust.org.uk/district-heating-loan).

In addition, the Low Carbon Infrastructure Transition Programme (LCITP)[4] was launched in March 2015. Early activity for the programme includes the Geothermal Energy Challenge Fund which has awarded over £185,000 to fund four projects exploring Scotland's geothermal potential in relation to district heating at various sites across Scotland. In September 2015, the LCITP launched the Water Source Heat Pump Challenge Fund which called for projects requiring support for the development of an investment grade business proposal and offered up to £2 million to support a commercially viable demonstration project.

The activities outlined above will help secure a pipeline of district heating projects in Scotland.

Paragraph 147: We welcome the Scottish Government's willingness to work with the UK Government "whenever possible" on energy matters and specifically to establish a "joint intergovernmental group" to look at storage solutions. The Committee wishes to be updated as and when that work progresses and on other relevant areas of co-operative working in the energy field.

Scottish Government's response:

The Scottish Government sees huge potential in working more closely with the UK Government and other administrations on energy storage and other approaches to increasing the flexibility, security and sustainability of the energy system.

The Energy Minister has proposed an inter-governmental expert panel, led by senior officials but reporting to Ministers, to draw together the many strands of activity already underway in this area. The group proposed would help to sharpen analysis of relative costs and benefits as well as informing policies to support emerging opportunities and unlock the potential benefits highlighted by a number of witnesses during the Committee's inquiry.

The Scottish Government will be pleased to update the Committee on progress in relation to the proposed inter-governmental group and other future areas of co-operative working between the Scottish and UK Governments on energy matters.

[4] See link for background: http://www.gov.scot/Topics/Business-Industry/Energy/Action/lowcarbon/LCITP

Paragraph 148: Having already asked the Scottish Government about the lack of DSR (demand-side response) expertise on the Scottish Energy Advisory Board, we ask that the Scottish Government confirm what action it has taken to address this.

Scottish Government's response:

The membership of the Scottish Energy Advisory Board (SEAB) does not lack expertise in understanding the demand for energy. The Board brings together industry experts, academics, public sector bodies, National Grid, the STUC and consumer representatives to work collectively to deliver Scotland's energy potential and secure Scotland's energy future. Membership of SEAB is kept under review.

National Grid, represented on SEAB at Director level, is at forefront of the development demand-side response. National Grid's Power Responsive campaign[5] will help to inform development of the Scottish Government's plans in relation to demand-side response.

Paragraph 188: The Committee has previously considered the matter of Western Isles interconnection and we recognise the longstanding frustration expressed by the local authority and others who want this project to be realised. It is encouraging however that Scottish and UK Government Ministers were involved in the work to push this project forward and we seek an update from the Scottish Government on this work in particular but also on progress concerning interconnection for the islands overall.

Scottish Government's response:

Energy Minister Fergus Ewing instigated the Scottish Island Renewables Delivery Forum and co-chairs the Forum alongside the UK Secretary of State for Energy and Climate Change. The fourth meeting of the Delivery Forum was held on 21 September 2015.

The Delivery Forum is a unique inter-governmental working group focused on a shared policy aim to develop the renewable energy potential of the Western and Northern Isles and the grid infrastructure necessary to proceed at scale. The Forum convenes key decision-makers – including Council Leaders, developers, Ofgem and the transmission owner – with the aim of reaching agreement on a set of actions and timescales to facilitate connections between the Islands and the GB high-voltage grid.

With the huge resource potential of the Scottish islands and the policy intent clearly established, the focus of attention is clearly on delivery and, in particular, the process of producing 'needs cases' for the connections. As an update on recent and planned activity, the Committee may wish to note:

- DECC is currently consulting the European Commission with a view to securing State Aid approval for a Contract for Difference (CfD) for Remote Island Onshore Wind. The timescales for this process are uncertain but DECC Ministers have indicated that a decision from the European Commission can be expected within a couple of months.
- Projects eligible for a Remote Island Onshore Wind CfD are expected to compete for support alongside other less established technologies, if the State Aid case is approved.

[5] See National Grid's website: http://www.powerresponsive.com/.

- The UK Energy Secretary has indicated there will be three CfD auctions during this UK parliament with the next to commence before the end of 2016. We await further details from DECC on precise timings and the amount of budget available.
- Following an action agreed at the last Delivery Forum, a meeting of senior officials has been scheduled between DECC, the Scottish Government, Ofgem and SHE-Transmission to discuss the alignment of the timetable for the needs case with the DECC's next CfD allocation round.
- The Scottish Government and DECC have appointed Royal HaskoningDHV to develop a proposal for marine energy research and development activities in the Orkney Islands that will help to secure a clear pathway towards full commercialisation for the sector. The proposal is designed to support a compelling case for European funding support.

Paragraph 189: We ask the Scottish Government to elaborate on the "regional-based criteria" for investment in capacity, as mooted by Dr Sweeney during its evidence. We would like to see the detail of how such a proposal would work and the costs anticipated – operationally and for consumers. Once more information is available the Committee would welcome Ofgem's perspective on the matter.

Scottish Government's response:

The Committee heard from several witnesses that UK energy policy does not provide sufficient incentive to spur investment in new thermal generation plant. This problem is not restricted to Scotland but is much amplified here by the effect of the system of locational grid charges, which greatly discourages investment in new baseload capacity.

The UK Energy Secretary has recognised belatedly the seriousness of the UK's energy crunch and the urgent need to build cleaner replacement capacity. Amber Rudd's energy policy speech of 18 November appeared to signal a new 'dash for gas' to replace the UK's ageing nuclear and coal fleet but how that aim will be achieved via a redesigned Capacity Market, or how it is compatible with the UK Government's climate goals is as yet unclear.

The current design of the Capacity Market is indifferent to the location of capacity or to the environmental and wider energy system impacts of that capacity. The Scottish Government takes the view that important strategic and regional factors such as the location of existing infrastructure and sites designated for energy production, existing transmission infrastructure, sources of large-scale industrial emissions and proximity to pipeline and storage networks merit much stronger consideration in future system design and planning as part of the transition to a low-carbon future energy system.

The need to adopt a more strategic approach to planning that recognises the importance of location and tackles energy and climate change goals in parallel is exemplified in the case of Carbon Capture and Storage (CCS) technology[6]. Scotland is the best placed country in Europe to realise CCS on a commercial scale as Scotland's North Seas are the largest CO2 storage resource in Europe. The case is strengthened by our existing oil and gas capabilities, refining and chemicals cluster at Grangemouth and existing pipeline and platform infrastructure. However, poorly designed policy has the potential to ignore these considerations and instead reward higher carbon, less secure and less economically

[6] The International Energy Agency has estimated that by 2050, the cost of tackling climate change without CCS could be 70 per cent higher than with CCS.

advantageous alternatives. We therefore urge the UK Government to redesign the parameters of the Capacity Market and low-carbon incentives to ensure they bring new clean thermal generation forward in Scotland.

The Committee will be aware that the UK Government has recently withdrawn £1 billion of capital funding from the CCS competition. The Peterhead CCS Project proposed by Shell and SSE was the forerunner in this competition. The Scottish Government believes this decision undermines efforts to tackle climate change and deals another blow to Scotland's low carbon energy sector.

Paragraph 190: The Committee listened closely to the debate about the role of National Grid and discussion of the merits of an independent systems operator (ISO) as well as the whole system approach that might be better encouraged by appointment of a system architect. During the Scottish Government's evidence, Dr Sweeney referred to a "putative independent regulator in Scotland". The Committee requests that both the Scottish Government, in its response to this report, and the UK Government – given we are talking about the GB system – set out how they see the future role of National Grid, the case for an ISO (if they discern one), and the benefits or otherwise that they consider a system architect could bring to the oversight and longer-term planning of the energy system.

Scottish Government's response:

The Scottish Government recognises the potential benefits a system architect could bring to longer-term planning and oversight of electricity network development and investment. This matter was considered by the Scottish Government's Expert Commission on Energy Regulation[7], which reported in 2014, and Ofgem has already decided to enhance National Grid's role in planning future network development across the whole GB system. The benefits of this enhanced role should be analysed before going further towards a fully independent ISO.

Given that many of the most promising technological advances reshaping current power systems are at the distribution network level, the Scottish Government is of the view that greater strategic thought should also be given to distribution network capability and upgrades to support future-proof investment decisions. This could work to support increasing volumes of embedded generation and unlock the wide-ranging benefits that could flow from improved integration of distribution networks in the wider GB system.

The Scottish Government intends to evaluate the range of developments in grid operation (at transmission and distribution level), and the potential further benefits that a system architect could bring, as part of our work towards an over-arching energy strategy for Scotland.

[7] The Expert Commission's report: http://www.gov.scot/Publications/2014/07/1149

Paragraph 222: The CMA also found from its investigation that customers engaging least with the energy market – in terms of awareness and behaviour e.g. switching supplier – and "leaving most money on the table" were generally the most vulnerable (people on low incomes, the poorly educated, people with disabilities etc.). The Committee will return to the connected matter of fuel poverty – mindful of the November 2016 deadline for the target of eradication – when we undertake our annual budgetary scrutiny. In the meantime, we seek views from both the Scottish and UK Governments on what can be done to address the flaws in a system which, as we were told by the CMA, expects those with least to pay the most.

Scottish Government's response:

The Committee will be interested in the Energy Minister's response to the CMA[8] which expressed concerns about how some Scottish consumers are not well served by the energy market. While retail consumers in Scotland face broadly similar issues to those in other parts of the UK there are a number of distinct factors which mean that the extent to which these issues impact consumer bills differs.

The Scottish Government's focus centres on the following key areas:

- Higher proportion of consumer on pre-payment meters and higher energy consumption than the UK average.
- The high proportion of 'sticky' customers (those less likely to switch suppliers) in Scotland and the high concentration of the retail market in northern Scotland.
- Lack of competition for electricity-only consumers, consumers with dynamic teleswitch (DTS) meters in particular.
- Impacts of the removal of social tariffs on vulnerable groups.
- DNO financing and consequent impacts on costs for consumers in the North of Scotland.

The CMA has now published provisional findings and possible remedies. In relation to vulnerable consumers, the Scottish Government is particularly interested in the following remedies:

- Smart meter roll out and the extent to which this will address issues faced by those on pre-payment and dynamic tele-switch meters. We note that DECC has established a project to assess the planned provision of support for vulnerable consumers after the installation of smart meters and will welcome the opportunity to reflect on the findings of this work.
- Independent price comparison website and the extent to which this will improve weak consumer response – particularly for those least-engaged and lacking internet access.

The Scottish Government welcomes the CMA investigation and will continue to press that issues identified by the Committee are appropriately addressed by the CMA, Ofgem and UK Government and look forward to the CMA's refined remedies which are expected in January 2016.

[8] See letter of 19 December 2014 from Fergus Ewing to Roger Witcomb: https://assets.digital.cabinet-office.gov.uk/media/54ad163ce5274a4a42000001/Fergus_Ewing_MSP_Minister_for_Business_Energy_and_Tourism.pdf