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Department of Energy & Climate Change
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3 Whitehall Place
LONDON
SW1A 2AW

Your ref:
My ref: JG/KT
Date: 29 November 2011

Dear Mr Wieckowski

Re: Consultation on possible models for a Capacity Mechanism
Annex C Planning Our Electric Future

Cornwall Council is pleased to have this opportunity to respond to the consultation on the alternative approaches to a potential Capacity Mechanism as laid out in the Planning Our Electric Future White Paper.

Keen to achieve a decarbonised future for its communities and businesses, Cornwall Council is an interested and strategic stakeholder in electricity capacity. Cornwall's decentralised geographical position at the end of the UK National Grid infrastructure creates substantial concern in relation to energy security. Cornwall has the ability to exploit what is thought to be the broadest range of renewable energy resources in the UK. The ambition of its council is to utilise renewable energy generation as the bedrock of its important low carbon economic plans. Therefore Cornwall is ideally placed to become a flagship for the Government's 'green' growth plans. For Cornwall, the achievement of a decentralised electricity system is seen as a mid to long term necessity.

As a public authority we believe there to be key omissions in both the White Paper and the accompanying UK Renewable Energy Road Map. For instance we are concerned that the Road Map should at least include reference to Geothermal Energy and its capacity to deliver in the next ten years.

Much of this concern is not within the remit of this consultation and, conversely, the consultation covers much which is beyond the realms of appropriateness for a local authority.

Therefore we have only answered some of the earlier consultation questions as these are the most appropriate to reflect our knowledge and our role. Please see accompanying response.

Yours sincerely

[Redacted]
Cabinet Member for Waste Management, Climate Change and Historic Environment
Esel Kabynet rag Dyghtyans Atal, Chanj an Hin ha Kerhynnedh Istorek

Email: [Redacted]

Consultation on possible models for a Capacity Mechanism.
Annex C Planning Our Electric Future **The response of Cornwall Council**



Cornwall Council is very keen to support the '**Market Wide Mechanism**' as outlined in Annex C- Consultation On Possible Models For a Capacity Mechanism', Section C.3 Market-Wide Mechanism: Capacity Market (Page 180). Essentially this is the mechanism which most appropriately supports the Council's ambition for electricity generation for local use and potential export.

Cornwall suffers from serious social and economic problems due, at least in part, to its location at the south western periphery of the UK. This peripherality means that security of energy supply is a particularly serious problem with limited existing access to the UK's main gas supply. The Council sees a key opportunity in addressing Cornwall's social, economic and environmental issues if an appropriate 'Electricity Market Reform' (EMR) is undertaken by Government.

Cornwall has the broadest and most accessible mixture of natural resources for renewable energy in the UK. This covers a wide range of available technology which the Council sees as a short (e.g. solar and wind : c.1-5 years), medium (e.g. geothermal : c.3-10 years) and longer term (e.g. marine*: c.3-20 years) ambition. With approximately 2.3GW of offshore resource (ORRAD 2009 Report) off 697kms of coastline, marine energy is a particular long term economic driver for Cornwall.

The peripheral nature of Cornwall creates both positive and negative issues for local generation of electricity. Being so far from centralised energy generation leads to high transmission costs and concerns over the longer-term ability of the current grid infrastructure to cope with Cornwall's ambition managing potential exports of locally generated electricity. Socio-economic polarity is another key factor in ascertaining that Cornwall has a specific approach to policy. It is important that whenever urban or rural regeneration occurs in peripheral regions, it is undertaken with future sustainability of the community as a core function. Therefore all such regeneration must be undertaken utilising sustainable methodologies in order to ensure long-term economic growth and competitiveness.

Through its Green Cornwall Programme, Cornwall Council has a well publicised ambition to ensure that renewable energy plays a major role in its programme for the future. This ambition is supported by a internal framework of support which includes a practice of proactive planning and development practice for renewable energy.

Such ambition covers not only its own plans to support its activities through the generation of renewable electricity and heat but also , important for this EMR consultation, its low carbon economic ambition for its communities and businesses. Developments such as community-owned wind and solar renewable energy and the development of ambitions in geothermal and marine energy are part of its short, medium and long term plans. Following discussions with the Minister for Energy, the Council is currently working with Government departments and it is hoped that issues such as energy demand and security of energy supply can be addressed at an early stage should a '**Market Wide Mechanism**' be adopted.

Question One:

Referring to table of concerns on page 156 Figure C3 of White Paper



Cornwall Council is keen to further proposals for local 'SMART' grids in Cornwall and therefore considers the 'targeted' mechanism to be **inappropriate** for council areas, such as Cornwall which are rural, dispersed and peripheral and which have great resource potential to support the UK Government's ambitions and targets for renewable energy generation.

The Council has concerns over the Government's ability to 'model capacity' and 'generated ability' over the next four years.

Question Two:

Cornwall is at the end of the ageing national grid infrastructure. This therefore concerns the Council and is a serious consideration in its potential to hamper our ability to deliver not only its own renewable energy ambition but also that of the Government. Taking into our earlier comments about our ambition for local electricity generation, the Council would like to see the lead in time for Strategic Reserve Capacity procurement to be shorter and sooner rather than longer and later.

The 400kv cable/infrastructure only comes centrally into Cornwall as far as Indian Queens with a 132kv line serving some of the north and south of Cornwall as far west as Hayle. This means that the rest of Cornwall is served by 33kv and most of its rural dispersed population by 11kv lines. It is in the areas where 11kv and 33kv substations exist that much of the renewable electricity generation resource capacity exists. Current capacity availability is very varied from substation to substation. Therefore grid capacity to allow the fulfilment of Cornwall Council's ambition for greater energy self sufficiency and Cornwall's long term generation potential is a genuine concern.

Questions Three and Four: no comment

Question Five:

In the longer term Cornwall Council sees Cornwall's potential in electricity export as an income generator in an international market. The Council is following the development of the European Super Grid with great interest and is reflecting its concerns and queries through mechanisms such as the Conference of Peripheral and Maritime Regions (CPMR) in which Cornwall plays a major role. To allow peripheral regions such as Cornwall to benefit from their ability to generate substantial amounts of electricity and also support local distribution, the intercontinental and national electricity markets need to be freed up.

A core issue is the lack of ability to 'store' electricity at local level. This inability to 'store' creates a danger for peripheral regions such as Cornwall and could result in them being able to fulfil long term ambitions of substantially reducing fossil fuel electricity usage.

Another issue that Cornwall Council wishes to raise, which is indirectly related to this question, is the Council's perception that it is difficult to obtain a cohesive approach: having to work with the national manager (National Grid) and the local distribution network operator (Western Power Distribution).

Questions Six and Seven: no comment

Question Eight:



Cornwall Council believes that it is essential that a Strategic Reserve is periodically reviewed. They recommend that this must be undertaken by an independent body – such as Ofgem or an equivalent.

Question Nine: no comment

Questions Ten / Fifteen and Sixteen:

In the case of the 'distributed v. the decentralised electricity' debate Cornwall's views are clearly and understandably biased towards the recommendation for a decentralised structure. This is a cornerstone ambition of regions such as Cornwall being able to utilise electricity generation as a catalyst for local economic opportunity.

Finally:

Cornwall Council believes that there is a need to make the Strategic Reserve more locally innovative in its operation. This has been covered in previous answers but this 'innovation' should be based around SMART inverters and local storage capability (e.g. pump storage* – electric car usage and overnight storage in vehicle batteries etc). (**Cornwall's china clay area being a perfect area for pump storage capacity*).

A 'secondary' market is very important for Cornwall. However the Council believes that this White Paper demonstrates a lack of vision. A centralised approach to electricity generation (i.e. Hinkley Point etc) constrains a longer term vision in which the vast resources of a rural and peripheral region, such as Cornwall, can play a key role in the UK's future energy sustainability.

