Christopher Osborne

From: David Surplus <[redacted]>
Sent: 09 September 2013 12:34
To: Christopher Osborne
Subject: RE: UFU [Scanned]
Attachments: Matrix UFU CAFRI press release.doc

Hi Chris,

Please find attached word file that paraphrases your text to use more conventional terminology.

I hope this is OK.

Given you are on vacation this week I have also forwarded the text to your press officer Taryn.

Kind Regards,

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Storage of intermittent energy

For more information contact David Surplus B9 Energy Storage Ltd, [redacted]

From: Christopher Osborne [mailto:christopher@ufuhq.com]
Sent: 05 September 2013 14:11

To: David Surplus
Subject: UFU [Scanned]
Importance: High

David,

Great to meet yourself and Conor earlier.

Firstly, I have spoken to Clarke and he can see no reason, constitutionally why the UFU cannot be involved in the Collaborative Network, so could you put the UFU down as a participant? Obviously subject to any formal process as required.

Secondly, could you read this piece I have written for the CAFRE publication? Feel free to correct anything I may have missed or misinterpreted.

Matrix Sustainable Energy Horizon Panel

In April 2013, DETI Minister Arlene Foster launched a report incorporating the findings and recommendations of Matrix Sustainable Energy Horizon Panel (panel was made up with a wide selection of representatives from across the energy sector). The report was entitled "A Foresight Study into Future Market Opportunities in Sustainable Energy Technologies" and identified how the Northern Ireland economy could grow through the development of sustainable energy technologies. The Matrix Panel believe that by adopting integrated and

sustainable energy solutions that can be replicated on a global scale, Northern Ireland will become established as a centre of excellence. To date no individual region has established a leader position in this sector and so Northern Ireland has a unique opportunity to become an early adopter in the field.

The report highlighted that would be achieved through the adoption of "Intelligent Energy Systems". Such a system would incorporate, amongst other initiatives Distributed Generation. Distributed generation (also known as on-site or local generation) is the generation of electricity from many small energy sources. This type of generation allows the collection of energy would improve security of supply. Distributed Generation is an alternative to the centralised plant generation (Transmission and Distribution of bulk power) which constitutes the grid infrastructure we presently rely upon in Northern Ireland.

Distributed Generation would offer a different way of managing the demand and supply of the generation of renewable energy. The Intelligent Energy System would offer what is known as Local Energy Generation, Supply and Storage (LES).

The Ulster Farmers Union believes LES needs to be researched and developed in Northern Ireland. Only then will we be in a position to go some way towards tackling the rigid barriers encountered with grid connection and storage of small scale renewable generation units. There is a need to create a resilient yet flexible solution which allows the incorporation of alternative generation sources which are integrated into the energy system thereby ensuring security of supply.

Such a systems approach could be adopted to solve the many challenges in delivering local, robust, and commercially viable renewable energy systems that are compatible with national scale infrastructure.

LES will provide a "switchable" solution to the identified problems, a seemless feed of energy will be fed into a binary grid, where traditional fossil fuels will be maintained so as to provide a base-load to cover the intermittent nature of renewable generation.

This Intelligent Energy System could offer a number of options. There is the possibility that small scale generators could bypass the traditional grid arrangement and set up a private network and there is the option to facilitate Demand Side Units. However, much work will need to be done to incorporate any LES solution into the current setup. But, this is a viable option which could address these two major barriers in the uptake of sustainable renewable energy in Northern Ireland.

There is no getting away from the fact that there is much work to be done in this area, first of all policy inertia on the part of policy makers in the energy market, but we have possible solution to consider and this will form a part of UFU policy going forward.

Buy-in will be needed from Government, SONI, NIE, Regulatory authorities and policy makers for Intelligent Energy Systems to be considered in Northern Ireland. For example, There is currently a disproportionate amount of Regulation surrounding Distributed Generation with a lack of understanding from policy makers and this must be addressed.

Many thanks

Chris