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Dear Mr Harrington

Renewable Energy Route Map

Introduction

Welsh Power Group Limited is a dynamic independent power company, which aims to build an integrated multi-asset European energy business using a buy and build strategy.

Welsh Power Group is the owner and operator of Uskmouth Power, a 363MW coal fired power plant in South Wales. Uskmouth is one of the most efficient and flexible coal plants operating in the UK and being fitted with FGD is also one of the cleanest plants. Welsh Power has a subsidiary Severn Power Limited who is developing an 850MW gas-fired power station on the brown-field site next to Uskmouth Power.

In January 2007 Welsh Power launched Haven Power, an electricity supply company providing predictable electricity prices and straightforward contracts tailored to the individual needs of business customers. In June 2007 the Company commenced the development of a 49.9MW biomass plant at Newport Docks through its wholly owned subsidiary Nevis Power Limited. Nevis will look to develop a range of biomass plants, hopefully a number will be in Wales. The Newport biomass plant development is being managed by Carron Engineering & Construction our specialist power engineering business. Carron Energy Limited is the commercial and trading arm of the Group managing its trading and energy management functions, coal, CO₂ and gas trading.

As the only Welsh based energy company, we fully support the Assembly's work on developing energy supplies in Wales. In this response we have tried to offer very practical solutions to the challenges that we all face. This is based on our experience in operating plant in Wales, and developments of both small and large scale new plants.

Annex A : Welsh Power Group Ltd response to Energy Routemap

Biomass

Welsh Power co-fires biomass in Uskmouth Power Station (Uskmouth) and is developing a 49.9MW biomass plant at Newport docks. There are significant benefits in building biomass plant, as the technology is proven and the output reliable. The increasing wind generation across the transmission system as a whole will also mean that plant like Uskmouth, that can load follow, i.e. generate to meet rising demands, will be critical in ensuring secure supplies. Welsh Power is committed to further increasing its biomass activities.

We believe that biomass fuel supplies are the biggest challenge in fulfilling the biomass potential in Wales. We would therefore welcome moves by the Assembly to help develop local biomass sources. As final consumers we are not well placed to write longer term contracts with small producers, for example farmers, but the Assembly may be able to look to encourage farmers to grow energy crops.

Where importation is required it is extremely difficult to guarantee the source as an "energy crop" rather than biomass. The ROCs incentives requires the use of energy crops to gain maximum support for either co-firing or pure biomass. We do not believe that this incentive has been helpful at a time of growing concern over global food prices. Much imported biomass, such as olive & shea meal / pellets, etc.. are classed as waste products, that if not burnt to produce energy may well just be burnt or go to waste sites, losing the energy value altogether. As well as encouraging local energy crop production the Assembly should work with Government to look for other products that provide sustainable biomass sources and lobby Government to increase the ROC value of all biomass generation. Definitions of bio-fuels will be vital in achieving renewable energy targets.

Welsh Power is talking to Swansea University about research into alternative energy crops. Part of the problem is the amount of land required to meet fuel demand from local supplies. For a plant like Nevis, the demand is 450,000 tonnes/year, which means 43,000 acres of production, which is not deliverable. While we believe local energy crops could meet some of this demand, it is also necessary to work on sustainable imports.

Furthermore, if the incentives were right, companies like Uskmouth, that is older coal plant, could look to extend plant life by investing in new technologies to increase biomass burn. Were coal plants able to see a future income stream they may invest in ways to modify plant or even invest in new boilers. While the ROC allocation to co-fired biomass is so low (0.5/MWh), and energy crops so expensive and hard to secure, there is no incentive to make these investments. The table on page 15 clearly indicates that there is significant potential for co-firing biomass with coal and the Assembly should try to maximise this potential.

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The assembly could also look to help Welsh companies in their searches for other energy crop sources. Given the docks available around the coast it is possible to import significant volumes if sustainable sources can be identified. It would also help if movement from Docks to plant could be done more by rail.

Tidal & Wave Power

Welsh Power has considered investment in tidal and wave technologies. We do not currently feel that the technology is proven and we are also concerned about the connection costs. We would be interested to participate in projects with other parties, possibly with Welsh Assembly backing, in smaller projects. These would have to be embedded in the local distribution networks and developed in areas where connections are cost effective. The Assembly does, however, need to be mindful that many of the coastal regions that could be used are also protected environments. Where permissions are awarded they are likely to come with many conditions, most of which will push the cost of development up.

Hydro

Welsh Power welcomes the Assembly's role in the UK English & Welsh site study for new hydro stations. However, we believe that the grid connection costs, combined with the development costs, make it unlikely that small scale schemes will be economic. As the consultation paper rightly points out, the current pump storage stations are used for managing grid quality issues far more than energy production on its own. The power they produce is extremely expensive and therefore does not offer realistic baseload power.

Energy from Waste

At the present time we cannot see enough "good quality" waste supplies to make WfE plant economic, mainly due to the success of policies to encourage recycling.

The problem with the community schemes is that the relevant households must take energy from the scheme, which does not fit well with an energy supply market based on consumer choice. The Assembly may achieve better results by trying to match companies that produce "quality waste" to companies such as Welsh Power who can help develop and then operate on-site generation.

Wind

Welsh Power understands why the pursuit of more wind power in Wales is attractive. However, we feel the grid connection issues (see below) will not allow for timely development. There also remains considerable opposition to wind farms from local communities making planning a lengthy and costly process. We do not think the Assembly should be over optimistic in the amount of wind

Annex A : Welsh Power Group Ltd response to Energy Routemap

capacity that will be delivered given these obstacles, but instead work on getting convergence fund money to develop a wider range of technologies.

The other problem with wind is the intermittent nature of the generation. This means that to ensure security of supplies, the network must carry conventional plant, ready to run, for the times when it is not windy. Data from NGC suggests that in the middle of winter there are days when very little wind generates. Customers value security of supply highly, the Assembly must therefore ensure that wind developments are accompanied by necessary back-up to guarantee the lights stay on no matter what the weather.

Transmission Access

For all generators, there is currently a significant queue to get transmission capacity to connect new plant. Welsh Power has recently requested a connection in the South West only to be told that the earliest connection data would be 2020. In South Wales it is around 2014. We are extremely concerned that the Transmission Access Review (TAR – led by Ofgem & BERR) is looking at ways to allocate scarce capacity, including the removal of the firm access rights on which generators made investment decisions.

The Government and the regulator need to focus on ways to get National Grid, as the transmission owner, to build the capacity that generators are willing to pay for. We are in danger of missing out on the benefits of a competitive wholesale market as new generators will not be able to come to the market and existing generators will have their transmission rights removed and given to more expensive, intermittent renewable generation.

The tone of the document suggests that the Assembly has faith in Ofgem sorting transmission access out, but unfortunately this is not a view that we share. Welsh Power would be very happy to discuss with Assembly members or staff the way the transmission regime is working and the problem with National Grid never undertaking any pre-emptive investment decisions, such as a new England Wales connection across the Severn.

National Grid must be allowed to progress significant investment in new capacity under its price control. Ofgem's concern over costs to customers must be weighed against the costs that the customers will face if effective competition in generation is eroded still further. New entrants should expect to be offered firm connection rights within a reasonable (say 4 years) timeframe if the generator is willing to underwrite the costs. To encourage new entrants the calculation of the amount to be underwritten (shallow verses deep connection costs) could reduce the costs to generators. However, delivery of firm physical rights is vital. Alternatively some mechanism could be found to introduce more competition into the provision of transmission services; this could involve a break up of the National Grid.

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The Assembly should be very careful about backing ideas of capacity auctions. What happens if Uskmouth has no connection, but a wind farm does and it is not windy? The gas auctions have not been a success, with stranded assets and security concerns over last winter. Even where we look to develop renewable energy sources we can only do this on the basis of firm access rights – the project will only get financing if it can sell the power. If capacity is taken from conventional plant to renewables, what guarantee does the renewables plant have that it will not have its capacity to give to another technology in 5 years time? We never would have got financing for Severn Power without transmission access. Any regime that is not physically firm jeopardises all new plant build¹.

Welsh Power would urge the assembly to push BERR and Ofgem to focus on increasing the generation capacity connection rate as quickly as possible. They should not be wasting time on auctions, especially in a market like Wales where smaller plants (that the Route Map wishes to encourage) would find the complexity and costs of participating in monthly, or even annual, auctions a significant barrier to entry.

Research & Development

Welsh Power agree that research and development is important. As mentioned above, Welsh Power is already talking to Swansea University about undertaking research on energy crops. Wales needs a reliable, sustainable and technically suitable fuel supply for the long term. We would be extremely interested in talking to the Assembly about financial support for this collaborative work.

We have not spoken to the Wales Energy Research Centre, but looking at their web-site it would appear that this is a very academic organisation and we hope that there is a forum for energy companies to help steer research to those areas that are likely to deliver greatest rewards. For example, energy companies will be far more aware about the costs associated with intermittent technologies and the need to be able to forecast output to limit imbalance exposure in the wholesale market.

Welsh Power hopes that these comments are helpful. We would of course be happy to discuss any of the issues raised, or other energy policy matters, with you or any of your colleagues.

Yours sincerely



Alex Lambie
Chief Executive

¹ Note in gas all new developments – like the Welsh LNG sites – have bid in the auctions to get firm, long-term rights before building. New plant can do that, but existing plant would be compromised, as was the case for Grain LNG.