Anthony Mungall
Ofgem
9 Millbank,
London,
SW1P 3GE

14th February 2012

Dear Anthony,

Electricity transmission charging: assessment of options for change

InterGen is the UK's largest and most successful new entrant independent generator, having invested £1.4 billion in the UK since 1995. InterGen owns and operates three highly efficient gas fired power stations in the UK totalling 2.5GW and is currently developing two new flexible gas plants; the Spalding Energy Expansion and the Gateway Energy Centre. These projects represent a further £1.2 billion investment and will add 1.8GW of efficient power to the grid and help to maintain security of supply when it is not sufficiently windy.

InterGen supports the Status Quo transmission regime principally as:

- Our existing and new gas plants are located near to centres of demand reflecting the intent of the Status Quo regime – to encourage efficient siting of generation and thereby minimising CO_2 emissions;
- The Status Quo regime helps to ensure security of supply, minimise CO_2 emissions and keep consumer costs to a minimum. Alternative solutions do not meet the Government's "trilemma" and hence should be eliminated;
- DECC has not stated that the transmission regime is a barrier to renewable investment – which is demonstrated by the current rate of investment in power generation schemes in the north of Scotland;
- A new transmission charging regime will impact consumers adversely at a time when their pockets are being badly impacted by the recession; and
- There is no proposed mechanism to recompense generators who have made significant investment decisions for any loss they will suffer as a result of regime change; whereas certain projects will make windfalls for investments already made.

We have set out our views on the main transmission options in detail below and would welcome the opportunity to discuss these with you. As you will appreciate, any change to the Status Quo could have significant financial implications for InterGen and other generators.

Status Quo

The UK has signed up to legally binding carbon reduction targets and as a result, low carbon technologies such as onshore and offshore wind need additional support. In DECC's UK Renewable Energy Roadmap[1] transmission charging is not cited as one of the barriers to entry for new renewable projects in the UK. There are currently 40GW[2] of renewable generation in the TEC queue in the UK, planned to be operation by 2020. This is enough to meet that UK's carbon targets. The Redpoint model backs up this assumption, as reasons that Feed in Tariff levels, carbon price support rates and other mechanisms will be designed to deliver on the UK's 2020 targets. Therefore, the Status Quo should deliver without the requirement for further change to regimes and resulting undermining of investments in existing and consented assets. Furthermore, DECC's Electricity Market Reform White Paper[3] does not request that transmission charging be reviewed in order to support the deployment of low carbon generation. The White Paper asks Ofgem to look at improving wholesale market liquidity to increase competition and to establish a credible reference price for the Feed in Tariff, which will help address the 'trilemma' without the requirement to alter TNUoS.

InterGen has cited its plants near to centres of demand, reflecting the intent of the Status Quo regime (previously adopted by Ofgem and implemented by National Grid). Overall, this reduces generation costs and minimises CO2 emissions after taking account of normally higher land, labour and general infrastructure charges in centres of demand e.g. the South. The current TNUoS charging methodology, ICRP, encourages generators to invest efficiently based on proximity to demand which will ultimately lower the cost to the consumer.

Socialisation

InterGen is pleased that Ofgem is minded to rule out further consultation on socialised charging as this would not encourage efficient citing of plant and would undermine completely the investment case in existing and planned new assets in the UK.

Improved ICRP

Ofgem has stated that, based on its initial view, improved ICRP is the right direction for transmission charging. Whilst it has been modelled that onshore wind achieves the greatest load factors in the North of Scotland, InterGen does not believe that uptake of this technology is simply a factor of

[1] DECC's 'UK Renewable Energy Roadmap' (July 2011) identifies six cross cutting barriers to deployment for renewable technology:

- Facilitating Access to the Grid (via Connect and Manage and establish offshore grid framework);
- Ensuring Long term investment certainty;
- Tacking pre and post consent delays;
- Ensuring sustainable bioengery feedstock supply;
- Facilitating deployment of renewable supply chains and
- Encouraging innovation.

[2] From National Grid Transmission Networks Quarterly Connections Update, November 2011

[3] 'Planning our Electric Future: a White paper for secure, affordable and low-carbon electricity', DECC, July 2011

transmission charging. We believe that this technology has been built economically under the current ICRP regime, in particular:

- Renewable technologies have received support via the RO since 2002 and current Electricity Market Reform proposals will replace this with a Feed-in-Tariff under which low carbon generators will receive additional revenue in excess of the wholesale electricity price to encourage investment at the rate required to meet 2020 targets;
- The introduction of the Carbon Price Support Mechanism in 2013 will make it more expensive for fossil plant to generate thereby increasing the revenue that renewable generators can receive from the market;
- While ROC banding is due to decrease for onshore wind, this reflects technology and supply chain efficiencies; and
- Renewable generation achieves lower funding costs via Europe (e.g. EIB) and, going forward, the Green Investment Bank.

Any proposed changes to transmission charging should reduce the required ROC / FiT level needed to make an economic return on most wind projects. This impact has not been modelled by Redpoint, or raised by DECC in relation to the EMR work.

InterGen is therefore very concerned that by adopting the improved ICRP methodology, renewable generation (in particular onshore wind) will be over-compensated relative to its impact on carbon saving, resulting in too high a take up of this technology and subsequent huge impact on consumer / tax bills. Worse, flexible thermal generators which are traditionally based near the centre of demand to minimise transmission losses and costs will face an additional material transmission cost burden and this will again have to be borne by consumers / tax payers). If improved ICRP is adopted, it should also be anticipated that DECC will adjust the relevant FiT rate for differing technologies – as such technologies should not be making super returns at the expense of the tax payer or consumer. InterGen is concerned that this is another unintended consequence of revising the transmission charging regime, impacting on as yet undecided Government policy – which is something that Ofgem has stated it is not intending to do.

We note from the Redpoint modelling that changes in load factor will materially change the transmission calculation. Going forward and as experienced in other countries, load factors for gas plants are very likely to reduce and could average 40-50% (as experienced in Spain as a result of increasing intermittent generation). This would result in significant changes to projects' cost base in the new regime such that thermal projects located close to the centres of demand and which experience reducing load factors, will incur higher costs (potentially despite them being efficient plants). Consequently, as wind penetration in the north of Scotland is increased and as gas plant load factors are lowered – consumers / tax payers will face rising costs from both renewables and thermal plants.

The UK is facing a security of supply gap, as older coal and oil plant retire under the LCPD. It is estimated that the UK requires an additional 30GW of thermal plant by 2030 to be constructed to manage the projected gap, and to assist in meeting demand from the intermittent nature of wind. If the charging regime becomes even more penal for thermal generation, in particular generation located near to centres of demand, this security of supply gap could be exacerbated as some existing and new planned plant will become uneconomical. InterGen has historically followed the locational charging signal in the UK and sited its existing and planned projects near to centres of demand while also taking into account the cost of gas supply pipelines (and carbon capture suitability for planned plants). InterGen believes that this incentive should not be diluted or the efficiency of the market will be compromised and its significant investments could be materially impaired.

Our shareholders are Ontario Teachers' Pension Fund, one of the world's largest pension funds, and China Huaneng Group, one of the world's largest electricity generators. In the UK, regulatory instability continues to deter investment from foreign boardrooms. DECC understands that EMR is causing an investment hiatus, not just for low carbon but also for thermal plant, and TransmiT is only adding another unnecessary layer to this uncertainty (especially given on and offshore wind are already economical and being built and Europe is likely to introduce a new transmission regime from 2017). InterGen's shareholders have made it clear that investing in the UK is currently unattractive, and the viability of InterGen's 1.8GW of planned new gas plant will be further threatened if Improved ICRP is adopted as this undermines the investment case further. In light of this, the security of supply implications of introducing Improved ICRP are clearly severe, and not, we believe, correctly modelled in Ofgem's latest assessment.

InterGen notes that Ofgem's consultation document is its initial view. InterGen would like to see detailed review and modelling of the possible undesirable side-effects of improved ICRP. In particular:

- Supporting the location of new generation further from the centres of load with increased cost to customers and tax payers (including the impact on the Capacity Payment Mechanism);
- Details of possible windfalls for existing renewable and thermal generation;
- How existing and proposed new flexible gas plants located near centres of demand will be compensated for material adverse changes to their investments;
- Potential mothballing of existing gas plant and lack of new investment in flexible gas generation – and how this impacts security of supply; and
- Modelling showing how Improved ICRP will impact the economics of gas plants alongside a well-developed Capacity Payment Mechanism.

In conclusion, InterGen supports maintaining the Status Quo. If Ofgem remains minded to adopt Improved ICRP, we require the introduction of grandfathering of TNUoS for existing and consented plants to prevent early closures of existing generation and the delaying (or even cancelling) of the urgently needed new thermal generation to bridge the security of supply gap. Grandfathering will

also ensure that projects that are in operation in high TNUoS zones will not receive a windfall and therefore excessive returns (regardless of technology type).

InterGen would be happy to discuss further with you any of the issues raised in our response.

Yours sincerely,

Melissa McKerrow
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InterGen UK