

SUBMISSION FROM INTERGEN

6th May 2015

Executive Summary

1. InterGen welcomes the opportunity to respond to the Economy, Energy and Tourism Committee's inquiry into Scotland's security of supply.
2. InterGen supports the UK and Scottish Government's commitment to ensure there is sufficient flexible generation to meet energy demand and acknowledges the evolving and challenging role of conventional generating plant towards the end of the decade.
3. InterGen believes that security of supply must be assessed across the whole interconnected GB electrical system, and in due course the whole of Europe, rather than just in terms of generation and demand within a specific geographic region or national state.
4. InterGen believes that in broad terms the Electricity Market Reform package and principally the Capacity Market sets the right investment framework to maintain long term security of supply in the GB and Scottish market coupled with other energy market reforms (such as cash-out and liquidity proposals).
5. InterGen believes that there are a number of system challenges presented by a transition to a lower carbon energy mix. Provision of ancillary (system) services will become an increasingly important role for flexible generation and it is therefore imperative that the system operator procures these services in an open and transparent manner.

About InterGen

6. InterGen is the only genuinely independent generator active in the UK market with a track record of developing, constructing and operating large scale thermal power generation projects¹. We have been active in the UK market since the mid-1990s and have around 2.5GW of existing gas generating plant and ~2GW of new gas-fired generation in development.
7. InterGen is owned by two major international investors, representing two key classes of investment which the Government is seeking to attract to UK infrastructure investment, namely, pension funds (Ontario Teachers' Pension Plan) and strategic investors from the People's Republic of China (China Huaneng/Yuedean).
8. InterGen's regional offices for its European business are located in Edinburgh supporting around 50 skilled professional roles and we are also actively pursuing opportunities to invest in renewable generation assets in Scotland.

¹ Since privatisation, many independent players have come and gone – Enron, TXU, AEP – but InterGen remains. Other active independents have a nationalised background and have not developed and constructed entirely new plant – Drax, Eggborough, IP/GDF.

9. Our specific responses below are directed towards the specific issues raised by the committee.

Supply and whether there is sufficient generation to meet demand, in particular to the end of the decade. What role will new generation that is under construction, or has been consented play? The Scottish Government aims to have a “largely decarbonised electricity system by 2030”. What does this mean in practice, and are there sufficient tools in place to bridge the move from fossil fuels to renewables?

Capacity margins, in GB as a whole and in Scotland, have been tightening in the last few years due to a number of fossil fuel power stations closing or mothballing. These closures were generally anticipated although exact closure dates were unknown. On a GB wide basis, we anticipate that capacity margins will continue to tighten slightly over the next few years particularly as some more existing gas and coal plant retires however this will be offset in part by (a) the commissioning of new renewable generation, offshore wind in particular and (b) the construction (if built) of around 2GW of new thermal plant that was successful in the UK Capacity Market Auction in 2014

10. InterGen agrees that there will be new challenges to security of supply throughout the 2020s as further thermal power stations close. There will need to be sufficient flexible capacity available on a GB-wide basis to support and operate alongside the intermittent generation on the system. This should be provided by a combination of flexible gas generation, demand side response measures and electricity storage. In addition to this, we believe that the system operator will increasingly need to procure ancillary (system) services and it is therefore imperative that the system operator procures these services in an open and transparent manner, and provides clear information to market participants so that appropriate investment decisions can be made.

11. InterGen believes that in broad terms the Electricity Market Reform package and principally the Capacity Market sets the right investment framework to maintain long term security of supply in the GB and Scottish market coupled with other energy market reforms (such as cash-out and liquidity proposals) which will reward flexible gas generation. As Electricity Market Reform has only been in place for less than a year, we believe it is imperative to maintain policy and regulatory stability, at EU, UK and national levels. The introduction of a GB-wide capacity market was the subject of extensive consultation and we would be deeply concerned by the introduction of local geographic capacity markets, for example.

*How predictable **peak demand** is at present, and how is this likely to change in the coming decade. In particular, what impact will the development of demand side response have? What could be done to improve developments in this area?*

12. Peak demand is inherently difficult to predict particularly with an increasing amount of embedded (non-transmission connected) generation and demand-side response. To put that uncertainty into context, National Grid, in its capacity as EMR Delivery Body, has forecast a range of peak demand between 57.4GW and

68.1GW by 2035². This is equivalent to ~12 large gas generating plants (which may or may not be needed).

13. We anticipate that demand side response will have an increasingly important role to play and could eventually meet around 10% of peak demand based on experience in other international markets. Further policy development and support in this area is needed.

*A number of new **transmission network** projects are currently under construction or being planned. What role will these have in securing electricity supplies, and where should future investment be directed? What role might the distribution network, and a single European electricity market play in securing supplies?*

14. InterGen believes that others are better placed to comment on this aspect of the inquiry

*A number of significant changes to the **electricity market** have recently been finalised and are being put in place to ensure competition and cost reflective prices for consumers. Are policies such as the Capacity Mechanism under Electricity Market Reform adequate, and what other long term signals might be necessary to ensure security of supply?*

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16. InterGen supports in principle the implementation of new transmission charging methodology (under Project Transmit) however it considers that a number of improvements can still be made to ensure a level playing field for all GB generators. In particular, InterGen has brought forward a CUSC modification proposal (CMP227) which seeks to reduce the absolute share of transmission use of system charges ("TNUoS") levied on generators as opposed to suppliers.

17. Until this year, TNUoS charges have increased significantly for most thermal generators (not just those in Scotland) and, despite recent changes, there remains considerable uncertainty around these costs going forward. Together with business rates, TNUoS charges represent a large uncontrollable fixed cost which makes the investment case for existing and new thermal generation difficult. InterGen would support further consideration by the system operator and policy makers of options to mitigate this risk thereby potentially reducing required rates of return for investors.

² UK Future Energy Scenarios, 2014 edition