



Ian Marlee  
Ofgem ,  
9 Millbank  
London  
SW1P 3GE

31<sup>st</sup> March 2010

Dear Mr Marlee,

**Project Discovery: Options for delivering secure and sustainable energy supplies**

InterGen welcomes the opportunity to comment on the above consultation paper and our response is attached.

InterGen is the largest and most successful new entrant in the UK power market in the last ten years. InterGen's UK portfolio includes three highly efficient gas-fired power stations and we are currently seeking to develop an additional 2GW of generation in the coming decade.

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

Yours sincerely,

Chris Ridgway

Director of Trading and Commercial Operations

InterGen (UK) Ltd

## **InterGen's response to Ofgem's consultation paper "Project Discovery: Options for delivering secure and sustainable energy supplies"**

### **Executive summary**

InterGen is the UK's largest and most successful new entrant 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 2,490MW and is seeking to develop up to 2GW of additional generation in the coming decade. Our response to this consultation is set out in light of that experience.

InterGen shares Ofgem's concerns regarding the need for substantial investment in Great Britain's ("GB") energy sector in order to deliver its environmental and security of supply targets. To ensure these aims are met, InterGen believes that:

- The competitive GB energy markets should be retained as they deliver substantial benefits to the consumer over the long-term.
- The future GB power market and regulatory structure should not allow vertically integrated companies to cross-subsidise generation capacity with profits from their retail business.
- A mechanism should be introduced that rewards the long-term provision of all generation capacity to ensure adequate Security of Supply.
- A GB carbon floor price should be introduced for Large Electricity Producers as soon as practicable.
- The Renewables Obligation ("RO") should be retained as the principal mechanism for meeting the UK's 2020 (and any subsequent) renewable targets, albeit with sharpened incentives.
- A coherent, stable and robust policy and regulatory framework is essential in order to ensure continued investment in new generating capacity in the UK.

Our responses to the specific questions asked in the consultation paper are below.

### **Chapter 3**

#### **Question 1: Do you agree with our assessment of the current arrangements?**

The assessment of the current arrangements is generally fair. However InterGen is concerned that the comments in paragraphs 3.15 to 3.18 of the Ofgem document are focused around investment by the Big-6 Vertically Integrated (“VI”) companies and new investors in renewables. It should be recognised that there are a number of existing non-VI investors in the GB generation sector who are also in a position to deliver new infrastructure in both conventional and renewable generation. InterGen has, with its lenders, invested £1.4bn in its existing 2,490MW of advanced CCGT generation and is presently developing two further circa 900MW CCGT plants. IPPs using project finance have developed and constructed 13GW of generation capacity in the UK’s CCGT and CHP fleet.

#### **Question 2: Are there other aspects of the current arrangements which could have a negative impact on secure and sustainable energy supplies, or costs to customers?**

InterGen believes that the degree of Vertical Integration in the GB power market is not compatible with minimising long-term costs to electricity consumers. Under the current market structure VI companies are able to cross-subsidise the construction of new generation capacity with profits from their retail businesses. Such cross-subsidies allow more costly capacity to be built in place of potentially lower-cost capacity constructed by non-VI companies, with the consumer bearing the cost of the subsidy up-front and the ongoing higher running costs in future.

This point is expanded further in our answer to Q7.

#### **Question 3: Do you agree that the five issues we have highlighted are the most important?**

InterGen agrees that issues 1, 2, 4 and 5 are all major issues that need to be considered in any review of GB energy policy. However, InterGen does not agree that sharpening price signals at times of system stress (issue 3) is an effective way of ensuring adequate long-term security of supply. Low frequency, high impact events are almost never reflected in longer-term forward market prices and hence rarely result in a visible price signal to invest. Furthermore, punitive cashout prices act as a barrier to entry for smaller players who are unable to self-balance.

InterGen believes there are two other key issues worthy of inclusion:

- Market structure
- Policy and regulatory stability

#### *Market structure*

InterGen believes that one of the major issues that should be resolved in the long-term interests of the consumer is the degree to which Vertical Integration can distort the wholesale power market and the cost of new generation capacity. InterGen urges Ofgem and the government to create a

truly competitive wholesale power market in any overhaul of the GB energy policy and regulatory framework. We expand on this point in our response to Q7.

### *Policy and regulatory stability*

With the major political parties discussing the need for increased intervention in the GB energy markets, Ofgem's Project Discovery findings and DECC's Energy Markets Assessment paper, all investors in the energy markets are acutely aware of the potential for large-scale reform of energy policy, market rules and governance. Whilst this uncertainty persists, investors will be extremely wary of committing funds to future GB infrastructure projects and this is likely to lead to an investment hiatus. It is not only the Big-6 who are able to switch investment between markets. InterGen's UK developments also have to compete for funding with other projects worldwide.

InterGen recognises that changes are required to the current arrangements but believes that it is essential that a long-term, coherent and stable energy policy and regulatory framework emerges from these various reviews within this year. Whatever policy regime is adopted it needs to be robust enough against different scenarios to avoid the need for frequent changes and has to preserve the value of current assets and any associated contracts as well as encourage new development.

#### **Question 4: Do you have any comments on our description of what might happen if no changes are made to the current arrangements?**

With so many different bodies advocating the need for intervention in the energy markets, it appears unlikely that there will be no changes to the current arrangements. However, in the event that no clear policy consensus appears, InterGen believes the following scenario to be the most likely.

CCGT plant will continue to be built by the VI companies on a "just in time" basis to cover their customer demand but leaving the UK with minimal reserve margin against plant failures (for example the 2008 nuclear outages) and/or times of very high demand such as an extreme cold spell. Renewable generation capacity will continue to grow but at a rate that fails to meet 2020 targets. We consider it highly unlikely that companies would invest in nuclear or clean-coal generating capacity under the present arrangements.

### **Chapter 4**

#### **Question 5: Do you believe that our policy packages cover a sufficient range of possible policy measures?**

Yes in that they cover a range from incremental reform of the current arrangements to a strong degree of centralised planning.

## **Question 6: Do you have suggestions for variants to these policy packages?**

InterGen sees merits and disadvantages in all of the proposed packages and does not support any of them in their entirety. Our main comments on each package are described below with our preferred package outlined in response to Q7.

### *Targeted Reforms*

InterGen is generally supportive of the minimum carbon price and improved demand side response proposals. However, we do not believe setting a minimum carbon price forward from 2020 would cause a near-term acceleration in the rate of investment in low carbon generation capacity. As described in our answer to Q7, we believe a GB top-up tax for Large Electricity Producers should be introduced from the start of 2011.

For the reasons described in our answer to Q3, InterGen does not agree that sharpening price signals at times of system stress is an effective way of ensuring adequate long-term security of supply.

### *Enhanced Obligations*

InterGen believes that increasing obligations on suppliers to contract for generation could, if sufficiently long term, have a positive impact on the development of cost effective generation. This is one method by which a capacity market could be initiated in the UK as part of the set of measures we propose in our answer to Q7. Clearly this would need to be complemented by further measures to prevent Vertically Integrated market participants from self-contracting without setting a realistic capacity price.

Regarding the suggestion that all CCGTs could be obliged to have back-up fuel, there is no established track record of successful operation of advanced 'F' class combustion turbines in dual fuel mode due to the technical difficulties encountered in this mode. Recent reports suggest that a number of 'E' class machines which had previously been operating in dual fuel mode have moved back to single fuel operating having encountered similar difficulties. The advanced class machines, which deliver high performance in terms of output, heat rate and environmental emissions, have very tight fuel parameters in order to deliver this performance reliably and there is not the scope to retrofit them for dual fuel capability. Accordingly, introducing such an obligation on CCGTs is liable to see many of them forced to close early, exacerbating the security of supply problem rather than assisting with its resolution.

### *Enhanced Obligations with Renewables Tenders*

As described in our answer to Q7, we believe that the Renewables Obligation remains the most appropriate mechanism for delivering the government's renewable targets. Accordingly it should be retained and strengthened if necessary.

### *Capacity Tenders*

As described in our answer to Q7, InterGen believes that following market restructuring, it is appropriate to introduce a mechanism that rewards the long-term provision of generation capacity to ensure future security of supply. Rather than focus on a specific capacity tender process, we recommend a thorough appraisal of capacity reward schemes worldwide to see which, if any, would be most appropriate to apply to the GB market.

### *Central Energy Buyer*

InterGen does not support this proposal as it is likely to remove many of the benefits of a truly competitive market, be extremely costly for all parties to implement, is liable to legal challenge and will undermine existing contractual agreements between generators and suppliers.

### **Question 7: What other policy measures do you believe should be considered, and why?**

To meet the aims of delivering an acceptable level of security of supply in a cost efficient manner whilst meeting environmental targets, InterGen suggests the following policy package:

- Creation of a truly competitive wholesale power market.
- Introduction of a mechanism that rewards the long-term provision of all generation capacity.
- Introduction of a GB carbon tax on Large Electricity Producers.
- Retention of the Renewables Obligation with sharpened incentives and / or a revenue stabilisation scheme.

### *Creation of a truly competitive wholesale power market*

Provided there is a stable policy and regulatory environment, a truly competitive power market will attract a wide range of investors in generation infrastructure and an appropriate level of risk will remain with those investors. Over the long-term, such a market will deliver innovative and low-cost generation capacity, which ultimately benefits the electricity consumer. InterGen strongly supports the competitive intent of the GB power market but believes that this has become diluted through the dominance of the Big-6 VI companies.

As we have noted in our response to Ofgem's discussion paper on Liquidity in the GB Wholesale Energy Markets, the degree of Vertical Integration in the GB power market is not compatible with a competitive and liquid market. Under the current market structure VI companies are able to cross-subsidise the construction of new generation capacity with profits from their retail businesses. Such cross-subsidies allow more costly capacity to be built at the expense of lower-cost capacity constructed by non-VI companies, with the consumer bearing the subsidy up-front and the ongoing higher running costs in future.

Accordingly, InterGen believes that a package of measures is necessary requiring VI companies to trade for all their retail energy requirements through the wholesale market, coupled with an obligation for separation of accounts and progressively greater separation between the generation and retail supply businesses.

### *Introduction of a mechanism that rewards the long-term provision of all generation capacity*

Current forward wholesale power prices (and specifically clean spark-spreads) do not support the construction of new non-subsidised fossil fuel fired generation capacity. However, irrespective of the rate at which renewable capacity is constructed, a substantial amount of new CCGT capacity will be required to ensure an adequate level of security of supply prior to the earliest date for commissioning of any new nuclear or clean coal power plants. Furthermore, the running regime and hence revenue flow of all fossil fuel fired plants will become more uncertain as it will increasingly depend on the output of renewable generation.

It is therefore appropriate to consider some form of reward for the long-term provision of generation capacity. This should apply equally to both existing and new capacity. To the extent government policy desires a certain mix of fuel types, the payment for capacity could distinguish between different technologies. InterGen do not advocate a specific method for rewarding the provision of capacity but recommend a thorough appraisal of existing schemes worldwide to see which, if any, would be most appropriate to apply to the GB market. However, any move to capacity auctions or tenders should be on the basis of a level playing field. VI companies should not be able to offer cheaper capacity than independent generators simply because they can cross-subsidise from their retail business.

### *Introduction of a GB carbon top-up tax on Large Electricity Producers.*

Whilst the EU ETS cap and trade scheme is an effective way of reducing carbon emissions to a defined target, the recessionary demand reduction has resulted in a lower EUA price than is required to support the UK's targets and aspirations for renewable and low-carbon generation.

InterGen therefore supports the introduction of a GB carbon top-up tax on Large Electricity Producers from the start of 2011, based on their Verified emissions under the EU ETS. The top-up level should be clearly stated for a sufficient forward duration to give investors confidence in financing low-carbon generation capacity. The top-up tax amount should be calculated using the average spot EUA price over the year rather than against each organisation's achieved traded price. EU-wide support for such a scheme is unlikely and therefore it is appropriate to introduce a GB-only top-up tax solution that can sit alongside the EU ETS.

### *Retention of the Renewables Obligation with sharpened incentives and / or a revenue stabilisation scheme.*

The Renewables Obligation (RO) is a well-established mechanism familiar to investors, operators and suppliers and can deliver renewable generation targets if the incentives are sufficiently strong.

InterGen believes the RO should be retained as the principal mechanism for meeting the UK's 2020 (and any subsequent) renewable targets. If there is demonstrable concern that targets will not be met, the buy-out price should be raised or penalties imposed on suppliers who fail to meet their

obligation. To control the costs of the scheme it is appropriate to continue regular re-banding (albeit with grandfathering for existing projects) to prevent over-subsidising established technologies.

It may also be appropriate to introduce some form of Revenue Stabilisation scheme for smaller-scale projects, such as increasing the capacity limit for applying Feed-In-Tariffs or a cap and collar on wholesale market earnings.

## **Chapter 5**

### **Question 8: Do you agree with the assessment criteria that we have used to evaluate the policy packages?**

InterGen believes the criteria are appropriate and notes that in assessing "i: Confidence of achieving supply security" the volume of flexible, low carbon generation required to balance increased levels of highly concentrated and intermittent renewable generation must be taken into account. We also propose that a further criterion be added: Risk of increased barriers to market entry.

Whilst difficult, it would also be insightful to have an indication of the overall costs to all parties for implementing each package and a 10 year cost of operating under that regime.

### **Question 9: Do you have any comments on our initial assessment of each of the packages?**

Subject to the views aired in our answers to Q6 and Q7, we believe the assessment of each package against the stated criteria to be fair.

### **Question 10: Do you agree with our summary of the key benefits and key risks of each policy package?**

The table in Figure 8 of the Ofgem document is generally a fair summary of the key benefits and risks of each policy package.

However, in line with our response to Q6, we would add that a key risk of the Enhanced Obligations package is that requiring generators to have a back-up fuel capability could result in early closure of plants where the cost of fitting such technology is high or it is impractical to fit.

### **Question 11: Do you have a view on which package is preferable, or alternative policy measures or packages that you would advocate? We are particularly interested in any analysis you may have to support your views.**

InterGen's views on each of Ofgem's packages have been presented in the answer to Q6. Our preferred package is described in Q7.



## **Chapter 6**

### **Question 12: Do you agree with our assessment of the timing for important investment decisions?**

Yes we agree that new investment decisions will become critical around 2012. However, it is important that a clear, stable, scenario-resilient policy direction is known well before this to allow those investment cases to be built.

### **Question 13: Do you believe that early actions should be considered?**

The present Winter has demonstrated that there is currently a very high level of security of supply. With few plant closures likely, new plant coming on line and suppressed demand anticipated it seem probable that a similar level of security of supply will persist for at least the next two years. Accordingly InterGen does not believe that early ad-hoc actions should be considered which may ultimately be at odds with the final policy framework: rather the long-term policies should be thoroughly debated and then implemented without further delay.

### **Question 14: Do you think that the issues are such that policy measures should be considered as a package or should they be considered on a case by case basis?**

InterGen does not believe it is appropriate to address the key issues on a case by case basis. To regain investor confidence it is essential that a long-term, coherent and stable policy and regulatory framework that addresses all the key issues emerges from this (and other) consultations within this year. It is important that this framework is robust enough to withstand a wide range of energy demand, supply and price scenarios to avoid the need for frequent intervention.