

Ofgem's Response to DECC's Consultation on "Improving Grid Access – Technical Consultation and Impact Assessment"

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Target audience: Transmission licensees, generators, suppliers, CUSC parties, Government officials, and any other party who has an interest in the Transmission Access Review.

Overview:

This document sets out Ofgem's response to DECC's "Improving Grid Access - Technical Consultation and Impact Assessment" documents. As we have previously expressed, we have concerns with the approach proposed by DECC for reforming grid access. We reiterate our concerns that the model proposed may not deliver on its stated objectives, and has the potential to create large, unpredictable constraint costs. In the absence of the development of a holistic model of access reform, we are concerned that the proposed approach may create a number of ambiguities and leave a number of issues to be resolved in the future. We consider that the proposed regime needs to be kept under review.

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Summary

On 3rd March 2010, DECC published its technical consultation document and impact assessment on grid access reform. These documents describe in more detail the features of DECC's model of transmission access reform, which it proposes to implement using the powers conferred on the Secretary of State under the Energy Act 2008. We welcome the opportunity to comment on these latest documents.

Background

Enabling renewable and other low carbon generators to secure timely access to the electricity transmission network (the "grid") is critical if we are to meet our climate change and renewable energy targets. To achieve this, we need access rules which encourage the best use of the existing transmission capacity and which support the timely delivery of new capacity. Ofgem is committed to playing its part to deliver effective reform of the grid access arrangements.

The Energy White Paper published in May 2007 announced a joint review by Ofgem and DECC (then the Department of Trade & Industry) of the access regime for electricity transmission networks in Great Britain – the Transmission Access Review (TAR). The objective of the review was to deal with the large (and growing) queue of electricity generators that have been unable to gain access to the transmission system for a number of years. The review culminated in the TAR Final Report, which was published in the summer of 2008.

The Government considers that to meet our 2020 renewable energy targets, around 34GW of renewable generation will need to be connected to the system along with a considerable volume of nuclear and thermal generation, as a number of power stations close. Most recent information from National Grid shows that there is a queue of generation amounting to 70GW, in various stages of development. Of this 70GW, around 20GW is renewable generation of which around 3GW has already gained planning consents. Without reform, the existing grid access arrangements may act as a significant barrier to the connection of new renewable, other low carbon and conventional generation.

Following failure of the industry process to deliver the proposed reform set out in the TAR Final Report, the Secretary of State intends to use the Energy Act 2008 powers to bring about enduring access reform. In August 2009, DECC consulted on three alternative versions of a Connect and Manage model for access reform: 1.) socialised, 2.) targeted and 3.) shared cost and commitment. On 14 January 2010, the Secretary of State announced his intention to implement a socialised form of Connect and Manage whereby the additional cost of congestion would be smeared across all users of the system irrespective of whether or not they caused such constraints to occur.

DECC's proposed model

DECC's Connect and Manage model would allow a generator to use the grid before necessary wider transmission works are completed. DECC intends for all generators to be given a connection date based on when a connection to a local part of the grid can be provided. In the short to medium term, this approach will result in the connection of more generators than can be accommodated by the transmission system, causing increased costs of operation, which will be borne by users of the system and ultimately consumers.

To allow the National Electricity Transmission System Operator (NETSO) to connect a greater volume of generation than the system can accommodate, DECC is proposing to allow the transmission owners (TOs) to derogate themselves (without Authority approval) from the security standard. DECC proposes that the NETSO would be able to veto self-derogation decisions.

DECC is also proposing an increase of one year to the financial commitment that generators need to make to secure access to the grid ("user commitment").

Concerns previously expressed to DECC*Reliance on Redpoint analysis*

DECC's decision to implement connect and manage with socialised constraint costs is based on the conviction that the impact on constraint costs will be low. In reaching this conclusion, DECC is drawing on analysis it has commissioned from consultants (Redpoint) which calculates that, in a central case, the incremental constraint costs of connect and manage will amount to around £200 million in Net Present Value terms out to 2020. We consider there is a significant risk that constraint costs will be substantially higher. DECC's forecasts are in marked contrast to recent experience, other studies into the impact of connect and manage, and the analysis undertaken by our own consultants. The latter analysis implies DECC's connect and manage approach might result in £3.5 billion of additional constraints costs. These additional costs, which would be borne by consumers, might be avoided by an alternative access model.

Redpoint's analysis assumes a timely and very substantial reinforcement to the grid, beyond the current plans of the transmission companies. The additional costs of this investment are not included in the assessment of the merits of the proposed option. For example, the analysis assumes additional reinforcement has also been commissioned in Scotland which has not been identified by the transmission companies as being necessary in all but the most extreme generation scenario, and which is not part of the Second National Planning Framework for Scotland. This additional reinforcement is forecast to cost £450 million alone.

In addition, Redpoint's analysis does not assess the possibility for market power to be exercised by generators. To the extent to which generators are able to exercise market power, constraints costs would be higher than DECC assume.

It is impossible to predict the level of future constraints costs with precision. However, we consider there is a material risk that DECC's proposed approach will

give rise to considerably higher constraint costs, resulting in much higher bills to consumers.

Basis of assessment

Throughout the consultation document and associated impact assessment, DECC compares a limited number of alternative proposals to the "invest then connect approach". The "invest then connect approach" to access was in place prior to the implementation of the interim Connect & Manage approach last year. We do not believe this is a robust basis for the assessment of DECC's proposals. We consider that DECC should compare the relative merit of different access models. We continue to believe there are other models of access reform, which have not been fully assessed by the Department, that have the potential to deliver the faster connection of renewable generation without exposing consumers to the risk of substantially higher and unnecessary costs.

Potential to meet DECC's Objectives

We have concerns that DECC's proposed approach will not facilitate the achievement of the Government's carbon targets. The proposed approach is unlikely to help offshore wind generation connect and export power earlier. We also consider that DECC's proposals may increase the riskiness of generation investments and may hamper the timely delivery of critical transmission investments, potentially undermining the achievements of the Government's climate change targets.

Further observations raised by DECC's technical consultation

The need to keep the proposed arrangements under review

DECC's proposed approach to the allocation of grid access might be justified if the incremental impact on constraints of the proposed connect and manage model is as small as DECC forecast and there are measurable benefits to consumers. However, this outcome cannot be known with certainty. There is a material risk that constraint costs will be higher than DECC has forecast. For this reason, and to accommodate potential developments in energy policy and European legislation, we consider the proposed arrangements should be kept under active review by DECC, Ofgem and National Grid.

Self-derogation process

The grid is carefully planned to ensure system security and reliability, the standard for which are set out in the NETS Security and Quality of Supply Standard (NETS SQSS). To implement connect and manage, the security standard would need to be disapplied via a derogation. DECC's proposal would allow the transmission companies to propose a derogation which can only be vetoed by the NETSO. We do not believe that this proposed process has been sufficiently well developed or debated and are concerned that it might result in unanticipated problems. For example, in the event that the NETSO vetoes a derogation request, it is not clear what happens to the access rights of the generators behind the boundary that has not been successful in receiving a derogation.

Ofgem's response

Introduction

1.1. In December 2009 we responded to DECC's "Improving Grid Access" consultation documents. We highlighted a number of concerns with DECC's plans to implement a variant of the "connect and manage" transmission access model. We set out our concerns with the analysis undertaken to justify the proposed approach, and our views that the intervention might not deliver the stated objectives.

1.2. On 3rd March 2010, DECC published its technical consultation document and impact assessment on grid access reform. These documents describe in more detail the features of DECC's proposed model of transmission access reform, which it proposes to implement using the powers conferred on the Secretary of State under the Energy Act 2008. We welcome the opportunity to comment on these latest documents.

1.3. DECC plans to implement a form of connect and manage and to smear the resulting constraint costs among all generators and demand sites so that these additional costs are borne by consumers.

1.4. The concerns that we previously expressed about the justification and effectiveness of DECC's proposed intervention remain. We do not think that DECC's proposed model of access reform is in the interests of present and future consumers, given the very real risk that consumers will be exposed to unnecessarily high costs, and the potential that DECC's proposed approach will not materially improve the delivery of the Government's climate change targets. In addition, we have observations related to the detailed operation of DECC's proposed approach.

1.5. We consider that the proposed connect and manage regime should be kept under review to ensure that consumers are not exposed to unnecessary costs, and to accommodate potential developments in the energy market arrangements.

Background

1.6. Enabling renewable and other low carbon generators to secure timely access to the electricity transmission network (the "grid") is critical if we are to meet our climate change and renewable energy targets. To achieve this, we need grid access rules which encourage the best use of the existing transmission capacity, and which support the timely delivery of new capacity and the reshaping of the grid to meet the UK's future needs.

1.7. Without reform, the existing access arrangements are likely to act as a barrier to the connection of new renewable and other low carbon generation. Fundamental changes are required to allow the connection of significant volumes of new renewable

and low carbon generators. But, the current grid access arrangements create problems for all generators including renewable generators, other low carbon generators (such as new CCS plants), and new nuclear plants.

1.8. Ofgem is committed to playing its part in achieving the Government's low carbon and renewable energy targets by creating an effective grid access regime where generators can connect to the transmission system in a timely and efficient manner.

1.9. The Energy White Paper published in May 2007 announced a joint review by Ofgem and DECC (then the Department of Trade & Industry) of the access regime for electricity transmission networks in Great Britain – the Transmission Access Review (TAR). The objective of the review was to deal with the large (and growing) queue of electricity generators that have been unable to gain access to the transmission system for a number of years. Following a significant consultation process, Ofgem and DECC published key recommendations in the TAR Final Report in June 2008¹.

1.10. The Government considers that to meet our 2020 renewable energy targets, around 34GW of renewable generation will need to be connected to the system along with a considerable volume of nuclear and thermal generation as a number of power stations close. Most recent information from National Grid shows that there is a queue of generation amounting to 70GW, in various stages of development. Without reform, the existing grid access arrangements may act as a significant barrier to the connection of new renewable, other low carbon and conventional generation.

1.11. In the past, we have not seen significant delays in connecting generators to the grid. However, following the implementation of BETTA, delays in the planning process have impeded the construction of major transmission projects, the funding of which having already been made available by Ofgem. To give one example, Ofgem approved £560 million of investment to take effect from 1 April 2005 for transmission investment in renewable generation. However, key planning decisions for the main project in this programme, Beaulieu-Denny, have only recently been obtained.

1.12. In addition, the volume of generation awaiting connection to the system, in varying states of readiness and viability, has increased dramatically. Whilst this queue of generation is comprised in large part of un-consented projects, there is a view that delays to grid reinforcements are resulting in material delays in the connection of some generators. To illustrate, there is currently 70.3GW of generation in National Grid's connection queue. Of this 70.3GW, around 20GW is comprised of renewable generation, and only 2.6GW of this subset have achieved planning consents. All of these renewable generators have a connection date within the next four years, and the majority have a connection date in the next two years.

¹ This document can be found in the following location:
http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Documents1/080626_TAR%20Final%20Report_FINAL.pdf

Legal and Statutory Framework

1.13. The Electricity Act 1989 as amended by the Utilities Act 2000, the Energy Act 2004 and the Energy Act 2008, sets out the Authority's (and the Secretary of State's) duties. The principle objective is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition. The Secretary of State and the Authority are under a duty to carry out their functions in the manner which they consider is best calculated to further the principal objective, having regard to a range of factors, including the need to secure that all reasonable demands for electricity are met, the need to secure that licensees are able to fund their activities, and the need to contribute to the achievement of sustainable development.

1.14. The Energy Act 2010² contains provisions which, once commenced, will modify the principal objective and general duties of the Authority in carrying out its functions under the Gas Act 1986 and the Electricity Act 1989. In particular, the interests of existing and future consumers specified in the principal objective have been clarified as interests taken as a whole including their interests in the reduction of greenhouse gases and in the security of supply to them.

1.15. The changes include moving the competition element of subsection (1) of the principal objective to a new subsection (1B) requiring the Authority to carry out its functions as it considers is best calculated to further the principal objective, wherever appropriate by promoting effective competition. The changes will also mean that, before deciding to carry out functions in a particular manner with a view to promoting effective competition, the Authority must consider to what extent consumers' interest would be protected and whether there is any other manner in which to carry out those functions that would better protect consumers' interests.

1.16. The changes to subsection (2) setting out the matters to which the Authority shall have regard in performing its functions include, in respect of the need to secure that license holders are able to finance the activities which are the subject of specified obligations, an addition to those obligations which now include these additional activities that licence holders may be required to finance - the electricity supply levy, schemes for reducing fuel poverty and adjustment of energy charges to help disadvantaged groups.

1.17. The Energy Act 2010 received Royal Assent on 8 April 2010 but the provisions relevant to amendments of the principal objective and general duties of the Authority do not have legal force until they are commenced 2 months after the Act has been passed. These changes may have implications for the way in which we and the Secretary of State should view proposals to reform the access arrangements.

1.18. During the period between the Energy Act 2010 having received Royal Assent and commencement of the provisions which affect its duties, the Authority must continue to apply the principal objective and its statutory duties, in accordance with the Gas Act 1986 and the Electricity Act 1989 as they currently stand (i.e. prior to

² The Energy Act 2010 can be found at the following location:
http://www.opsi.gov.uk/acts/acts2010/pdf/ukpga_20100027_en.pdf

the Energy Act 2010 amendments taking effect), although it will be mindful of the changes that are forthcoming.

1.19. The Internal Markets in Electricity Directive (IMED) prohibits any undue discrimination in the terms offered for transmission access and tasks Transmission System Operators with, amongst other matters, "ensuring non-discrimination as between system users or classes of system users...". Standard Condition C7 of the transmission licence of National Grid Electricity Transmission Ltd (NGET) reflects this requirement and explicitly prohibits discrimination between any persons or class or classes of persons. Therefore, any enduring access model must not result in undue discrimination.

1.20. The Directive on the Promotion of Electricity from Renewables Energy Sources sets out that Member States may provide for priority access to the grid of electricity produced from renewable energy sources. The recent Green Package of European legislation, including Directive 2009/28/EC on the promotion of the use of energy from renewable sources, sets out that Member States shall also provide for either priority access or guaranteed access to the grid-system of electricity produced from renewable energy sources.

1.21. NGET has an obligation under the Electricity Act 1989 "to develop and maintain an efficient, co-ordinated and economical system of electricity transmission" and "to facilitate competition in the supply and generation of electricity". As System Operator, NGET also has an obligation "to co-ordinate and direct the flow of electricity onto and over the GB transmission system in an efficient, economic and co-ordinated manner".

1.22. The commercial rights and obligations for connection to and use of the transmission system are set out in a multi-party code, the Connection and Use of System Code (CUSC). This code is required to be in place under NGET's transmission licence and is a modifiable document: any CUSC party and certain other interested stakeholders such as Consumer Focus are able to propose amendments. For any CUSC amendment to be implemented, the amendment must better facilitate achievement of the applicable CUSC objectives (also set out in NGET's transmission licence), and be consistent with the wider statutory and legal framework. The Applicable CUSC Objectives are as follows:

- Applicable CUSC Objective a - the efficient discharge by National Grid of the obligations imposed on it by the Act and by the Transmission Licence.
- Applicable CUSC Objective b - facilitating effective competition in the generation and supply of electricity and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity.

1.23. In the near future, there are significant changes within the sphere of regulation that may impact on the way in which we discharge our duties. We note that Member States are required to implement the Third Package from 3rd March 2011. Any policy changes which are implemented prior to 3 March 2011 should be consistent with the aims of the Third Package.

1.24. We have previously indicated our view of the relevant considerations that need to be taken into account when assessing any model for access reform against the relevant legislative framework. We described these conditions in our response to the August 2009 Improving Grid Access consultation document³ and summarise the considerations in Appendix 2.

The Industry Process and Government Intervention

1.25. In April 2008, shortly before the conclusion of the joint Ofgem-DECC TAR project, National Grid raised six proposals to amend the Connection and Use of System Code (CUSC). These amendments were designed to be modular in nature, capable of being combined to deliver one of the following three models:

1. **"Evolutionary change"** – which would not seek to change the current allocation of access rights in a fundamental way, but comprised a suite of enhancements to the way in which system capacity is made available and charged closer to real time. Elements of the model could also strengthen the financial commitment ('user commitment') required from generators, relative to the current arrangements.
2. **"Connect and Manage"** – where generators wanting to use the transmission system would be offered a firm connection date, based on a forecast of when the transmission system would be sufficiently reinforced to accommodate those generators. If the transmission capacity was not provided on time, the generator would still be able to access the system, and the consequential constraints costs would be paid for by users of the system. Two versions of this model were developed by the industry process. In the original proposal, any additional constraints costs would be borne by all generators and by customers. In the alternative proposal, constraints costs are targeted only on new generators.
3. **"Entry Capacity Auctions"** – transmission system capacity would be auctioned to bidding generators.

1.26. National Grid twice attempted to raise a further model of access reform via CUSC Amendment Proposal (CAP) 171 and 172, which shared features of a connect and manage model whilst allowing greater flexibility in access holding and a mechanism for managing constraint costs. However on each occasion, the CUSC Panel prevented this model from being developed more fully. The features of this "fourth model" are summarised in more detail in our Report on Enduring Transmission Access Reform⁴.

1.27. On 25 June 2009 Lord Mogg wrote to the Secretary of State to provide an update on the progress being made towards reform of the transmission access arrangements. Lord Mogg noted that there appeared to be a lack of readiness to

³ Which can be found at the following address:

<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Documents1/DECC%20Consultation%20Response.pdf>

⁴ Please see the following link:

<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/tar/Documents1/Enduring%20Transmission%20Access%20Reform%20FINAL%20PUBLISHED.pdf>

ensure all viable alternatives to resolve grid access be examined and put before the Authority at the same time. Lord Mogg also indicated, amongst other matters, that he had a lack of confidence that the work would be completed in a timescale consistent with the Government's aspirations. It was the Authority's advice that the Secretary of State should take powers under the Energy Act 2008, to facilitate reform of the transmission access arrangements. Lord Mogg highlighted the critical importance of ensuring a coherent model of access reform is developed to provide the necessary clarity on the enduring access arrangements which will facilitate investment in renewable technology. That model should be consistent with both the statutory and legal framework and should be consistent with the principles for access reform that were set out in the TAR Final Report.

Models for access reform proposed by DECC in August 2009

1.28. As set out above, the industry considered and explored a number of different grid access models during the TAR process. However, DECC is now proposing to introduce a variation of only one of these models - the Connect & Manage approach – which would attempt to resolve the potential mismatch between the lead times for building generation and transmission capability, by simply ignoring whether the grid was ready to connect the generator. The consequence of such an approach is that various sections of the transmission system will be heavily over-subscribed for capacity, resulting in bottlenecks - as more generation than can be accommodated in real time by the transmission system will be given contractual rights to use the network. DECC's proposed Connect and Manage solution would result in a significant volume of constraint actions (where the magnitude of the constraint volumes is proportionate to the inefficiency of the regime), with the costs of these being allocated to users of the system in different ways.

1.29. In its August 2009 publication, DECC consulted on three alternative versions of a Connect and Manage model, namely:

- **Socialised:** where constraint costs (payments to generators when they cannot generate because of a lack of grid capacity) are spread over all generators and suppliers who are likely to pass some of these costs directly on to customers by including them in wholesale and retail prices; there would be no requirement for generators to make financial commitments beyond one year to underpin their demand for grid access ("user commitment");
- **Hybrid:** where new generators who opt for the Connect & Manage regime pay a proportion of the additional constraint costs that arise but may not be able to pass all of the costs directly onto customers ; again, there is no requirement for "user commitment" beyond one year; and
- **Shared cost & commitment:** where generators could make a five-year rolling commitment to pay for grid access and fix their grid access charges (including a proportion of forecast constraint costs). The remaining constraint costs would be recovered from generators, suppliers who would then pass them through to customers over a 10 year period.

Key features of DECC's model of access reform

1.30. To resolve the perceived delays to generators connecting to the transmission system, DECC's proposal would break the reliance on wider transmission works being completed before a generator can use the network. DECC intends for all generators to be given a connection date based on when a connection to a local part of the grid can be provided. This approach will generally result in the connection of more generators than can be accommodated by the transmission system at the time of connection. In turn, this will result in a requirement to move power around the system to prevent system security problems; a process which gives rise to "constraints actions". The more of these constraint-resolving actions that need to be taken by the National Electricity Transmission System Operator (NETSO), the less efficient will be the operation of the grid. Under DECC's approach, there would be significant over-selling of capacity and a considerable increase in the volume and cost of constraint actions. These costs would not be targeted back at the parties causing constraints, but would rather be shared out amongst all generators and demand sites, and ultimately paid for by consumers.

1.31. To allow the NETSO to connect this surplus generation, DECC is proposing to allow the transmission owners (TOs) to derogate themselves from the security standards. DECC proposes that the NETSO would be able to veto self-derogation decisions, without requiring approval from the Authority.

1.32. DECC is also proposing an increase in the financial commitment that generators need to make to secure access to the grid ("user commitment"). DECC proposes that generators would be required to provide a notice period of a minimum of one year and five days if they intend to hand back access rights. If a generator does not provide this notice and hands back capacity it would be required to pay: (a) the balance of the use of system charge due in the relevant year; and (b) the charge due in the following year. DECC considers this will help the TOs plan their systems more efficiently.

1.33. The following sections first recap the concerns we have previously expressed about the approach proposed by DECC and highlight further observations arising from the technical consultation document.

Concerns previously expressed to DECC

1.34. We believe that removing the barriers to new connection is important to the efficient functioning of the market. We share DECC's aim in this regard. We believe that the existing access arrangements need to be improved to ensure timely connection to the system, and for there to be greater clarity on the rights, responsibilities and associated charges for using the system.

1.35. However, we do not consider that the proposed Connect and Manage model would deal with these issues in a way that balances the needs of present and future consumers, and we are concerned that the proposed approach may not deliver the government's specific aim of helping to facilitate more timely connection of, and generation output from, renewable and low-carbon power stations. We also have concerns about the analysis which has been used to justify the current approach.

Basis of analysis

1.36. Throughout the consultation document and impact assessment, DECC compares a limited number of proposals to the "invest then connect approach"⁵. We do not believe that this is a robust basis for the assessment of DECC's proposals. We consider that DECC should compare the relative merits of a range of different access models. We continue to believe there are other models of access reform, which have not been fully assessed by the Department, that have the potential to deliver the faster connection of renewable generation without exposing consumers to the risk of substantially higher and unnecessary costs.

1.37. For example, the analysis DECC commissioned from its consultants (Redpoint) shows that Connect and Manage with locational BSUoS would meet the Government's objectives, but at a much lower cost than the approach that is now being proposed. DECC does not articulate clearly why it has chosen to adopt a socialised variant of connect and manage over an approach with locational charging.

Reliance on Redpoint analysis

1.38. DECC's decision to implement connect and manage with socialised constraint costs is based on the view that the impact on constraint costs will be extremely small. In reaching this conclusion, DECC is heavily reliant on analysis it has commissioned from Redpoint which calculates a 'best estimate' that the incremental constraint costs of connect and manage will amount to around £200 million in Net Present Value terms out to 2020.

1.39. We consider there is a significant risk that constraint costs will be substantially higher. DECC's forecasts are in marked contrast to recent experience, other studies into the impact of connect and manage, and the analysis undertaken by our consultants. The latter analysis implies DECC's connect and manage approach might result in £3.5 billion of additional constraints costs.

1.40. Redpoint's analysis makes a number of assumptions which have the effect of suppressing estimates of constraint costs. We do not consider that a central forecast of incremental constraints of around £200 million over a ten year period is likely on the basis of historical constraint forecasts, and the sensitivity of constraint costs to over-sold capacity.

1.41. Redpoint's analysis assumes a material advancement in the timing of commissioning of 9GW of generation. The scale of this advancement is likely to cause a significant increase in the volume of constraints. However, Redpoint's analysis assumes that the volume of constraints arising from the Connect and Manage approach will be similar to the historical long term average level of constraints costs which has been observed under the "invest then connect" approach. We do not believe this is plausible.

1.42. Redpoint's analysis also assumes in its central scenario that all but one of the reinforcements identified by the Energy Networks Strategy Group (ENSG) are built in a timely way and that an additional reinforcement has also been commissioned in

⁵ The "invest then connect approach" was in place prior to the implementation of the interim Connect & Manage approach last year.

Scotland. Moreover, the additional Scottish reinforcement has not been identified by the transmission companies as being necessary in anything other than the most extreme scenarios and is not part of the Second National Planning Framework for Scotland. This additional reinforcement is forecast to cost £450 million alone. The analysis does not take account of the costs of this investment in assessing the merits of different access models.

1.43. The reinforcements assumed by Redpoint would accommodate around 45GW of generation, of which around 34GW would be comprised of wind generation. This capability significantly exceeds the assumptions for connected generation which underpin Redpoint's numbers (33GW of renewable generation of which 27GW is wind generation). Redpoint's analysis assumes a level of transmission capacity which is significantly greater than is required to support the expected level of generation (essentially, it requires the grid to be "gold-plated") and the analysis assumes that this enhanced capability will be commissioned without delays. We question whether the generation scenario assumed by Redpoint would justify the transmission scenario.

1.44. Finally, we note that Redpoint does not acknowledge the possibility that generators may exercise market power in constrained areas of the system. Although the Energy Act 2010 envisages the instatement of a Market Power Licence Condition, as we noted in our recent document on "Addressing Market Power Concerns in the Electricity Wholesale Sector"⁶ the envisaged licence condition may not be able to deal with all of the issues that could arise in the market. If generators are able to exercise market power, constraints costs will be higher than forecast by Redpoint.

1.45. Taking into account all of these factors, we consider there is a material risk that the proposed approach will give rise to considerably higher constraint costs than envisaged by Redpoint, resulting in unnecessarily higher bills to consumers. We therefore consider DECC's proposed approach is not in the interests of present and future consumers. We also consider there are aspects of the proposed approach that have the potential to undermine the achievement of DECC's objectives.

Potential to meet DECC's Objectives

1.46. We note DECC's desire to intervene in a narrow manner, but this approach will leave a number of contentious and commercially important issues to be resolved by the industry process. Until there is clarity on these issues, companies will face uncertainty, which has the potential to undermine investment in new generation.

1.47. We are concerned that the modest increase in user commitment (to a minimum of one year and five days) will limit the ability of the transmission companies to capture reliable information which will help them to plan investments. The lack of user commitment may hamper timely decisions on planning consents as there will be less evidence of the need for a particular investment project ahead of time. Given the magnitude of the investment that is required to accommodate the generation anticipated to be required in 2020, effective user commitment is critical in providing a strong signal of need for transmission capacity ahead of time.

⁶ Please see: <http://www.ofgem.gov.uk/Markets/WhlMkts/CompanEff/Pages/CompanEff.aspx>

1.48. We also have concerns that, if capacity is oversold significantly in the manner envisaged by DECC's model, it may be necessary to "constrain off" some low carbon generation. This will reduce the contribution that those generators can make to the Government's renewable energy targets.

1.49. Finally, we would observe that the proposed approach will not help achieve a material improvement in the connection prospects of offshore wind generators, which are expected to produce 2/3rd of the energy required to meet the 2020 renewable energy targets. The proposed access model would only result in the connection of generation after the completion of associated "Enabling Works". In the case of offshore generators these Enabling Works will include the offshore cable all the way to the onshore landing point, and possibly beyond. Given the magnitude of such works, we do not consider that these are likely to be built much more quickly than the wider reinforcement works necessary to secure the system, and consequently do not consider that the proposed approach will result in the earlier connection of offshore generators.

Further observations raised by DECC's technical consultation

The need to keep the proposed arrangements under review

1.50. DECC's proposed approach to the allocation of grid access might be justified if the incremental impact on constraints of the proposed connect and manage model is as small as DECC forecast and there are measurable benefits to consumers. However, this outcome cannot be known with certainty. There is a material risk that constraint costs will be much higher than DECC has forecast. We consider that it is in the interests of present and future consumers to provide a route by which the arrangements could be revisited in the event this risk became reality. For this reason, the proposed arrangements should be kept under active review. We also consider the arrangements should be kept under review because there is a risk they may not support the achievement of the Government's climate change targets (for the reasons set out above); and to allow flexibility to implement Government policy, including potential changes to the wholesale market arrangement and European legislation.

1.51. We note the acknowledgement in the technical consultation document that it may be necessary to modify the arrangements in the future. We will keep the proposed arrangements under review and expect National Grid to do likewise, in line with its licence obligations "to develop and maintain an efficient, co-ordinated and economical system of electricity transmission" and "to co-ordinate and direct the flow of electricity onto and over the GB transmission system in an efficient, economic and co-ordinated manner".

Self-derogation process

1.52. The grid is carefully planned to ensure system security and reliability, the standards for which are set out in the NETS Security and Quality of Supply Standards (NETS SQSS). To implement connect and manage, these security standards would need to be disapplied via a derogation, to allow capacity to be over-sold ahead of time. Under the current arrangements, the Authority has the power to accept or veto a derogation request. DECC is proposing the transmission companies should be

able to decide to "self-derogate", and National Grid as NETSO would be able to veto the transmission companies' decisions. The only involvement the Authority would have in the self-derogation process is that it would receive regular reports from the TOs and NETSO on which derogations had been applied and the extent to which the licence provisions have been followed.

1.53. This self-derogation process was not described in previous consultation documents and we believe that the full implications of the proposed approach would benefit from further consideration. For example:

- We have concerns that it may not be appropriate for National Grid to be able to veto self-derogation decisions because it may be perceived to have a conflict of interest (given the impact of such decisions on constraint costs and the operation of the financial incentives on the NETSO to limit constraints costs);
- The criteria that need to be met for a derogation to be granted are not clearly specified; and
- In the event that the SO vetoes the request for a self-derogation, the access rights of generators are not clearly defined.

Conclusion

1.54. We continue to believe there are other models of access reform, which have not been fully assessed by the Department, that have the potential to deliver the faster connection of renewable generation without exposing consumers to the risk of substantially higher and unnecessary costs.

1.55. We are concerned that the proposed targeted intervention will leave a number of complex and controversial issues outstanding to be resolved by the industry process, creating a background of uncertainty. We are also concerned that the charges generators face could be volatile and unpredictable and that these charges will not take account of the characteristics of different generation technologies. Finally, we are concerned that the proposed access model may make it difficult for the transmission companies to plan the network and for the companies to convince the relevant planning authorities of the need for critical investment.

1.56. It is impossible to know with confidence that "connect and manage" will only have a modest impact on costs. For this reason we consider the proposed arrangements should be kept under review and modified if costs are significantly higher than anticipated or in the even that the arrangements do not adequately support the achievement of the Government's climate change targets. The arrangements may also need to change in light of Government policy and European legislation.

Appendix 1 – The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.⁷

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly⁸.

1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them⁹;
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.¹⁰

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

⁷ Entitled "Gas Supply" and "Electricity Supply" respectively.

⁸ However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

⁹ Under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.

¹⁰ The Authority may have regard to other descriptions of consumers.

- promote efficiency and economy on the part of those licensed¹¹ under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- the effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation¹² and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

¹¹ or persons authorised by exemptions to carry on any activity.

¹² Council Regulation (EC) 1/2003

Appendix 2 – key considerations for models of access reform

Given the current legal and statutory framework, we consider the following are relevant considerations when assessing any model for access reform against the relevant legislative framework; the considerations are also consistent with the principles embodied in the TAR principles:

1. **Consumer impact** – Whether any additional costs borne by customers are necessary and justified by other benefits, such as lower carbon emissions and/or lower wholesale and retail prices. This is not a requirement to avoid (constraint) costs or to rule out options where such costs could rise. Given the degree of concentration of ownership of generation in a number of locations, any model needs to manage effectively the risk of undue exploitation of market power which might otherwise give rise to excessive or unnecessary constraint costs. In addition, any model should be equitable in terms of cost recovery between generators and customers.
2. **Carbon abatement** – Whether any model impacts on carbon abatement either from new entry by low(er) carbon generation, or wider changes to the fuel mix.
3. **No Undue Discrimination** – models cannot give rise to undue discrimination.
4. **Competition** – the impact of any model on competition, for example, because they create or maintain barriers to entry, favour incumbents over new entrants, or impact on the risk of undue exploitation of market power.
5. **Efficiency and Security of Supply** – any impacts on the ability of NGET and the Transmission Asset Owners (TOs) to discharge their obligations in an efficient manner. A number of the agreed principles for the reform of enduring access arrangements are particularly relevant in this context, namely whether the arrangements:
 - a. Allow generation projects to be offered firm connection dates, reasonably consistent with the development time of their projects.
 - b. Require generators that want long term, financially firm access to the system to make long term financial commitments.
 - c. Allow generators to choose between long term fixed price access rights and shorter term, variable priced access rights.
 - d. Create better arrangements for sharing of transmission capacity.

6. **Simplicity** – All other things being equal, it would be preferable to implement an enduring access model that is relatively simple and where the implementation costs are relatively modest.