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Dear Angelita

Implementing Competition in Onshore Electricity Transmission

National Grid Electricity Transmission (NGET) welcomes the opportunity comment on Ofgem's consultation: Implementing Competition in Onshore Electricity Transmission. This response is on behalf of National Grid Electricity Transmission plc in its capacity both as the National Electricity Transmission System Operator (NETSO) for GB and the Transmission Owner (TO) for England and Wales. This response is not confidential.

It is useful to have the opportunity to consider the onshore competition and offshore enduring consultations alongside each other as they raise some interesting similarities and differences. At high level, Ofgem's proposals represent the extension of the existing competitive offshore transmission regime to the onshore environment. However unlike the offshore regime (where there is an identifiable party triggering the development – namely the offshore generator) it is less clear how such a clear trigger point for the competition process will be identified onshore.

We recognise the importance of completing transmission projects in a timely manner to meet customers' aspirations. We will continue to try to meet our customers' needs while taking account of the obligations placed on us to develop efficient, economic, and coordinated networks while duly considering the impact our activities have on the environment and on affected stakeholders such as the communities that host such infrastructure.

We understand and believe in the benefits of competition, including competition in the development, construction, financing, and operation of transmission network infrastructure. However, as always, there is a balance to be struck between the potential benefits and the associated risks and costs. In particular consideration needs to be given to the risks and costs of:

- a further stage in the connection/network development process; and
- a lack of clarity over the third party's role and therefore higher risk leading to increased cost of capital; and
- a lack of clarity over accountability between the incumbent and third party TOs and the NETSO.

We have a number of specific concerns regarding the detailed implementation of the proposed regime and these are set out briefly below and in more detail in the attachments to this letter.

- 1) As yet there is no clarity regarding the process that will be used to:
 - identify that the incumbent TO's performance is giving rise to concerns over value for money or efficiency;
 - identify that a particular project is suitable for the proposed competitive regime;
 - initiate the competitive regime.
- 2) Given the problem that Ofgem is seeking to address, the regime needs to provide for the third party TO to be able to develop as well as implement their own design of the network extension concerned.

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- Where the incumbent TO is required to deliver pre-construction outputs, a high level of detail will be needed regarding what is produced and published or shared with prospective third party TOs. If the specification and detail is clear and the information provided is transparent and comprehensive then there should be no scope for discrimination and business separation issues should not arise.
- 4) There appear to be a number of practical issues to consider in relation to the consenting process we consider it may be impractical for aspects of this to be undertaken by the incumbent TO on behalf of an unknown third party TO (not only with this raise issues with the IPC and the planning process over the implementation of Development Consent Orders but land owners and other grantors may be reluctant to enter into agreements until they know the identity of the third party TO).
- There is no clarity regarding the consequences of failure of the third party TO assets (e.g.: the design not working in a complex AC system, or poor reliability and availability) and how these would be shared between consumers, the incumbent and third party TO and the NETSO. We believe that TOs should be exposed to the consequences of asset failure so that they are properly incentivised to design, construct, and maintain their assets with the objective of minimising whole life costs and therefore minimising cost to the end consumer.
- Given that Ofgem has recognised that it is difficult to quantify the expected benefits from a greater third party role, it will be important that if it is introduced then it should not lead to increased costs for incumbent TOs.
- 7) Third party TOs should face the same obligations as the incumbent TOs to avoid undue discrimination, especially if they are providing more of a "network" than an isolated "spur".

We support the development of a "light licence" to ensure that the third party TO will develop the network extension concerned taking appropriate account of other networks such that the overall solution is economic, efficient and coordinated to the benefit all customers.

We do not see any particular problems with the necessary changes to the industry codes to provide for third party TOs and will work with Ofgem and the industry in the development of the necessary framework developments.

We have specific responses in relation to some of the questions that Ofgem has raised in the consultation which we have set out in the appendix along with a number of additional points regarding the proposed regime.

If you would like to discuss any of the points we have raised or have any questions regarding them then in the first instance please contact Andy Balkwill (andy.balkwill@uk.ngrid.com or 01926 65 59 88)

Yours sincerely

[by e-mail]

Paul Whittaker UK Director of Regulation



Appendix 1

Implementing Competition in Onshore Electricity Transmission – General Comments

A Number of Areas Require Further Clarity

Ofgem's consultation on competition onshore refers to benefits from "...designing, constructing, financing, and operating new transmission assets...". It also argues that an earlier process of third party TO selection provides more scope for more innovative design proposals. Elsewhere (including in the very first paragraph of the executive summary) reference is made only to construction and operation of the new transmission assets. It is unclear exactly which elements of new transmission projects Ofgem wants to open up to competition. However, the rationale for competition in the delivery of new transmission network seems to be that, where Ofgem has concerns regarding aspects of the incumbent TO's performance, a competitive route could be adopted. This is sensible in principle; however in practice there are some key questions that need clarification.

- what is the process for determining that there is a problem with the incumbent TO's proposals in terms of their efficiency or value?
- when will the process for determining these issues take place?
- once Ofgem has determined that a competitive approach is to be used, who will be responsible for developing a more efficient solution?

In respect of the last of these issues, it is not clear whether it should be the incumbent TO (given the concerns that led to the initiation of a competitive process), or whether the appointed third party TO should be responsible for the design. If it is this the third party TO, it will be necessary to ensure that they are bound by the requirements of the STC such that the network they develop is compatible with the rest of the GB transmission system. Will this be provided for under the "light Licence"?

In relation to determining that a particular network extension is suitable for the competitive process to be used, Ofgem has set out a number of criteria that it considers should be applied. We continue to consider that the comments we made regarding the additional selection criteria (set out in our response to the "Early Thinking" consultation issued in March 2011 (Ofgem Ref 48/11)) remain relevant. Specifically that:

- The project is the subject of an established functional design specification which defines the service required from the deliverer in terms of detailed asset design; and
- Suitable operational incentives can be established (aligning the interests of the deliverer with those of consumers by ensuring sufficient alignment with affected users and/or the system operator).

Arguably, these conditions address specific aspects of the "not meshed with existing assets" condition already identified. However, they highlight three important relationships between:

- selecting an appropriate design to achieve the required service;
- selecting a value for money deliverer; and
- encouraging / incentivising efficient asset operation to obtain the required service.

We continue to consider that these are important requirements in any regime providing for competition in delivery of onshore transmission extensions that will appropriately incentivise third party TOs to identify optimum solutions (assessed over their lifetime and on a GB basis) that efficiently balance investment and operational costs (including the consequences of unavailability).

Importance of Providing for a Mechanism for Third Party TOs to Design Network

Ofgem note that the onshore competitive regime offers the prospect for competition in terms of:

- design;
- procurement and construction; and
- financing, maintenance and operation.

Given that the onshore competitive regime could be triggered due to concerns over the incumbent TO's design, it would seem to be essential to ensure that the onshore process is designed so that



there is scope (i.e. sufficient time) within the process for the appointment of a third party TO that will be able to design the required network (even if in other cases Ofgem's concerns may relate only to efficient construction or financing of the development rather than the design itself).

While in principle the pre-construction outputs have been correctly identified, it should be recognised that this is not a sequential process. Depending on the process/results of any of the outputs identified it will be necessary to revisit some of the earlier decisions, for example conditions imposed in planning may require the project design to be revisited. It should also be noted that even following completion of pre-construction engineering, the scope, need, and timing of the project may change in light of changing customer requirements and/or additional information becoming available during the tendering process. If we are to avoid delays to the delivery of major projects, inefficient investment and/or increased risk of redundancy, it will be essential that the pre-construction and the contract award process are kept intrinsically linked. Furthermore it will be important that the ability to change, delay and/or cancel projects, in response to changing requirements, even after commencement of construction where it is the economic and efficient solution, should be maintained.

In providing a mechanism for Third Party TOs to design networks, it is important to ensure that an any appointment is made in a timely manner and an appropriate time allowance is incorporated into the project life cycle to facilitate Ofgem's process to select appropriate licensee to build, own and operate the assets (and possibly review/ approve the need case). In incorporating the additional time required to appoint a third party TO, the impact of either delays to generation connections and/or increase in future operational (including constraint) costs should be factored into the Ofgem analysis of the benefit from introducing competition on a scheme by scheme basis.

If the onshore regime can accommodate the third party TO designing the necessary network extension then it should be possible for similar arrangements to exist in the offshore regime and as such we feel Ofgem should retain the "early OFTO option" (we will of course make this point in our response to the enduring offshore regime consultation).

Who Bears the Risk of Changing Network Design Requirements?

In producing any network reinforcement, it is recognised that to minimise risk of redundancy, ensure timely delivery, and to deliver the most efficient solution, the scope, need, and timing of project must be kept under continual review. It may be necessary to change the scope due to:-

- changes in customer requirements (this could be driven by existing or future customers);
- inability to get required planning permission for preferred option;
- planning conditions resulting in either a significant change of scope or a alternative scheme being required;
- additional information being obtained from tender evaluation which changes preferred options;
- · identification of unforeseen conditions at commencement of construction; and
- ongoing discussions with impacted third parties.

Who Bears the Design Risk?

The current (and future RIIO) regulatory framework protect end customers because it allows Ofgem to act where it identifies inefficient or uneconomic decisions have been taken by a network owner (including where they consider a TO did not adequately respond to changing circumstance). Ofgem's consultation on implementing competition onshore is not explicit regarding who bears the risk of poor investment decisions. In particular where Ofgem (or its consultants) decide a particular project should proceed (and grant a revenue stream to a third party TO) then Ofgem is accepting the risk that this is the not the most economic investment decision on behalf of the end consumer.

An incumbent TO and third party TO may each have different design philosophies and the optimum solution will likely result from the designer optimising the capital and operational costs of a network extension. This means one party needs to be responsible for the overall design in full knowledge of the construction and lifetime operational consequences of the choices that they make. Getting a third

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party TO simply to build the incumbent TO's design might be more efficient than the incumbent building it, but it is unlikely to be the most efficient solution unless the third party TO has been able to revise or redesign the scheme to integrate its own philosophy into the investment decision. Furthermore, if the asset performs poorly in service it could lead to contractual disputes regarding who is responsible (is it the incumbent TO's design, or the third party TO's construction and subsequent maintenance, or was the NETSO operation of the plant incorrect in some way). If the third party TO is responsible for the design then one of these complex contractual interfaces is removed. Finally, it is difficult to see how the incumbent TO can be effectively incentivised to develop the most efficient design if they know that they will not be building it and they are unaware of the innovations that an unknown third party TO might be able to bring to the project.

As a result, ideally, the third party TO should undertake (or at least review and endorse) the network design (and keep it continually under review) since they are best equipped to do so, and can be appropriately incentivised to determine the most efficient investment solution. For the same reasons they should obtain the primary consents for OHL route and cable routes. Such an approach also means that Ofgem are left free to act in a regulatory capacity rather than implicitly (or even explicitly) making design and investment decisions on consumer's behalf.

Third party TO networks need appropriate availability incentives

Across GB, the incentives that apply to TOs for them to keep their networks reliable and available currently vary between different parties:

- in the offshore regime an administered availability penalty is used based on a percentage of their revenue being at risk for a given reduction in availability;
- in Scotland there are minimal incentives on the Scottish TOs under their price controls and the cost of resulting congestion falls on the NETSO and consumers; and
- in E&W, because of its dual SO and TO activities NGET can internalise the costs of its network outages and so is incentivised to act arrive at an efficient outcome that balances SO and TO costs.

TOs should have appropriate incentives to encourage them to make efficient decisions to the benefit of the end consumer. In the case of third party TO network extensions, the type of availability / reliability incentive that should be considered will depend on the network topography. An availability regime similar to that applied to OFTOs may appropriate to a network extension that is in effect a "spur" to the main integrated transmission system.

However, if there is any degree of "meshing" with the rest of the transmission system then the cost to consumers of the third party TO assets failing will depend on various factors such as the capacity of alternative routes and disposition of generation in affected parts of the network. In this circumstance, an availability target of say 98% is meaningless because it takes no account of the impact of unavailability on customers. This could vary significantly depending on whether the outage creates significant congestion or not.

The cost of congestion can be mitigated by forward contracting with suitable generation to manage their output over key periods rather than being exposed to costs in balancing timescales and the cost of this needs to be considered against other measures the TO could take (working extended days / 24h working, use of external resources etc). Ideally an assessment also needs to be made at the design stage of features that can be efficiently designed into the assets to facilitate high availability on assets where this is critical (e.g. design in some redundancy, the provision of strategic spares, or e.g. by-pass facilities that would allow a circuit breaker to be maintained while the circuit remains in service.). Without such an assessment at the design stage, the baseline level of performance that a particular network extension can provide is effectively "locked in" and it is unlikely that it can subsequently be raised significantly in an efficient manner. Furthermore, an incumbent's design might be made to look poor value for money if some of the elements were designed in and, therefore, these issues need to be considered at both the point at which it is decided that a proposal should be opened up to competition, and when the most efficient solution is selected.





TOs will sometimes want certainty regarding the timing of an outage so that they can contract for specialist services, but they need to understand the trade-off between paying a higher price for a contractor that can respond flexibly to changes of outage date and a lower cost contract that is less flexible and so liaison with the SO is required to understand the trade-offs.

Thus in general decisions cannot be taken in isolation and require an extensive dialogue between the TO and the NETSO. But, fundamentally, the TO's actions are most likely to result in an overall efficient outcome where they have a direct exposure to the costs that result from the availability and reliability of their plant since they are best able to control its performance¹.

An alternative arrangement might be for the TO to provide the NETSO with a design that provides a baseline level of performance and a menu of design features and associated costs that provide improved levels of performance. The TO would also need to specify a baseline level of maintenance outages and costs together with options for reducing these (e.g. by working overtime/ weekends / 24h working). The NETSO could then identify which features it wished to see designed in to the new network in order to mitigate future congestion costs, and indicate where it felt that non-standard maintenance or repair arrangements would be beneficial. This however represents a "deeper" SO role than is presently provided for in the GB electricity transmission regime.

We note that one of Ofgem's key objectives for SO incentives from 2013 is to minimise overall costs to end consumers by getting the NETSO and TOs to make appropriate trade-offs, whether that is ultimately about what assets to build in the longer term, or by optimising network availability in the shorter term. Clearly either of these approaches could result in higher costs for the TO than it would otherwise incur, so Ofgem has proposed some thoughts in their current SO incentives consultation. The removal of regulatory barriers to this objective appears to be the principal reason that Ofgem is proposing longer duration SO incentives with, where appropriate, similar incentive sharing factors to the TOs.

We support Ofgem's desire for greater cooperation in planning, coordinating, and actively managing outages. Ofgem proposes a mechanism for the GBSO to pay TOs to "change [their] behaviour", which could include rearranging or shortening outages. Although not explicitly stated, it could also involve encouraging TOs to change their approach to contracting with their main works contractors. Such payments would cover reasonable costs plus an incentive element to make it more attractive to the TO. However, currently, Ofgem does not appear to favour imposing any financial penalties on the TOs for not complying with reasonable requests from the NETSO for the TO to undertake measures to minimise outage impacts, or e.g. for extending an outage beyond its originally agreed duration (an "over-run"). We urge Ofgem to reconsider their position in this area.

Ofgem's second criterion

Ofgem has set out a number of criteria that could be used to determine whether a project was suitable for third party delivery. The second of these states:

• the project involves assets required for expansion of the network that are not meshed with existing assets, or can be defined in such a way that they are not meshed with existing assets

This sounds like the second part of the criteria (underlined) could provide scope for meshed assets to be defined in such a way that were considered "not meshed" and therefore eligible for a third party TO to develop. NGET would welcome clarification of what Ofgem mean by "can be defined in such a way that they are not meshed with existing assets". Some examples of the circumstances that Ofgem envisaged when drawing up this particular criterion would be helpful.

It may be that Ofgem has in mind projects such as proposed Eastern HVDC link (due perhaps to the different technology involved in their construction. However, such projects are meshed with the rest

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¹ Such and incentive is not unprecedented, as noted in E&W NGET is effectively exposed to a share of the congestion costs caused by the failure of its assets, and it is interesting to note that interconnector asset owners face the full risk of energy imbalance costs in the markets affected where a fault curtails flows arranged through implicit auctions.





of the network and their design and their operation need to be closely integrated with the rest of the main transmission system if best use of these new assets is to be made.

In addition, where technology is novel, then it is essential to ensure that the party introducing it has the asset management capability to manage it in such a way as to mitigate the risks that the novel technology may introduce so as to ensure that consumers do not bear this risk.

We believe that the best way to ensure that the TO has the right incentives in this area is to have an availability incentive such that the TO makes economic and efficient decisions regarding the design (e.g. including appropriate levels of redundancy, strategic spares, specialist support services from manufacturers) so as to minimise unplanned and optimise planned unavailability.

Experience from the Offshore Transmission Regime

The Offshore transmission regime has been developed over a number of years and is still developing. It is unclear to what extent Ofgem intend to model the competitive onshore arrangements based on those offshore however we believe there are a number of areas where there are lessons to learn from the offshore regime that should be taken into account in relation to the development of a competitive onshore regime.

The NETSO is responsible for the commercial arrangements between all parties (generator, OFTO and onshore TO). The time and effort involved in developing the non-standard arrangements² required for the current transitional offshore transmission projects has far exceeded the levels originally estimated. This has direct cost implications in two areas:

- a. increased cost to the consumer for additional Opex recovered by NETSO, both in the implementation stage (~£6.3m 2009-12) and ongoing (~£2m per annum);
- b. the costs of managing the risk associated with new entrants to the offshore transmission arena:
 - confidence within the financial sector in OFTO's ability to manage transmission assets:
 - ii. confidence within the financial and generation sector in a OFTO's ability to design and build transmission assets to the timescales contracted; and
 - iii. reducing the incentive mechanisms placed on OFTO to manage risk.

To reduce the risk that these same issues arise in onshore projects it will be necessary to ensure that the complete tender process is robust before it is used in anger. New TO parties need to fully understand the scope of the role that they will be taking on, and the tender process should be sufficiently detailed so that the system design, contractual requirements and obligations, and the ongoing operational relationships are clearly understood at the outset. If the QTT process is able to appoint TO's that are fully aware of the industry codes that will govern them then this will lead to less complicated commercial arrangements and this will result in obtaining better value from the costs associated with NETSO resources.

Finally, some of the issues that we have experienced as NETSO have no doubt been as a result of the evolving nature of the offshore regime. This was perhaps inevitable given that the regime was being developed in parallel with the development of large scale offshore generation and so a degree of catching up was needed. If the regime for onshore competition can be fully developed before there is an attempt to take any projects through it, it is likely that the difficulties that transitional nature of the offshore regime created can thus be avoided.

² As compared to the standardised agreements between the NETSO and the Scottish transmission owners.





Appendix 2

Implementing Competition in Onshore Electricity Transmission – Responses to Consultation Questions

CHAPTER THREE Question 1, 2 and 3:

As a high level principle, NGET would like to see consistent definitions across the various Codes (STC, CUSC, Grid Code and the SQSS). NGET has identified additional areas of the CUSC, Grid Code and STC that may require change in Appendix 3 along with providing detailed comments on identified section for potential code changes.

With respect to changes to the STC, NGET agrees with the areas identified in the STC that could require change. In discussions with Ofgem, NGET has obtained clarity on Ofgem's expectations for the progression of the Stage 1 STC definitional changes and whether these definitional changes extended to the STC Procedures. Ofgem noted they did not expect the STC Procedures to be changed at this early stage but rather it was for respondents to consider the possible changes that could be required to implement the proposed framework. NGET notes that no changes to the definitions in the STC can sensibly be identified until it is clear whether or not third party TOs will be subject to standard conditions. NGET has agreed that any STC changes should be raised following the conclusions of the next consultation which is due to be published in Spring 2012.

With respect to the CUSC and Grid Code: NGET agrees with the areas identified in the CUSC and Grid Code that could require change. Once the roles and responsibilities of third parties are more clearly understood, it will be possible to further assess the areas that will require change as a result of the new regime.

With respect to changes to the SQSS we believe that some minor changes to the SQSS definitions may be needed to take account of the potential for new onshore TOs – most obviously to the definition of "Onshore Transmission Licensee" (this currently specifies National Grid and the two Scottish transmission licence holders). This should probably be aligned with the definition of "Offshore Transmission Licensee" (anyone holding a transmission licence). Such an approach would imply changing the definition of Onshore Transmission Licensee from:

"NGC, SPT, and SHETL"

[NOTE: An approved change, yet to be implemented will amend NGC to NGET in the Onshore Transmission Licensee definition]

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"Means the holder of a Transmission Licence in respect of an onshore transmission system granted under section 6 (1) (b) of the Electricity Act 1989 (as amended by the Utilities Act 2000 and the Energy Act 2004)"

It is also worth noting that throughout the SQSS reference is made to the incumbent TO areas (England and Wales [NOTE: A housekeeping modification is going to change 'England and Wales' to 'NGET's area'], SPT's area, and SHETL's area). The inclusion of a new TO will mean that this will need to be reviewed once there is more clarity around the roles and responsibilities. NGET will give further consideration to the options available to address this issue³.

See Appendix 3 for our initial thoughts on the potential code changes

³ The above definition may still require "onshore transmission system" to be defined. An alternative approach to consider might be to define onshore transmission system by exception "Means the holder of a Transmission Licence in respect of a transmission system that is not and Offshore Transmission System" since Offshore Transmission System is defined in the Licence.



CHAPTER FOUR

Question 1: What level of detail would be required for the following pre-construction outputs in order to hold an effective selection process:

- project design
- technical specifications
- route identification
- site studies
- environmental impact assessments and stakeholder consultation?

We are concerned that this question suggests an underlying misunderstanding of the network development process. The question implies that there is a stage at which a pre-packed set of specifications and data can be produced and handed over to a third party. Network development is an iterative process that proceeds against a range of uncertainties regarding the constraints that can impinge on major infrastructure project. In addition, it is usually carried out against a changing generation / demand background and so that plans need to be kept under constant review to ensure that they remain appropriate. The pre-construction deliverables therefore will be dependent on "where the project has got to" at the time Ofgem decide that it should be opened up to a competitive process.

If the third party TO is to undertake (or revise) the design, it is unlikely to be efficient for the incumbent TO to provide significant detail on some issues that may be subject to subsequent change. If on the other hand the competition is simply about who can build, finance, and maintain to an "established design" at the lowest cost then it would be appropriate for more detail to be provided so that the third party TO is clear over what they have to deliver and its required level of performance.

It is like that the final design can only be confirmed when tender information has been received and even then it must be continually kept under review. Given the complexities associated with obtaining consents, and the need to negotiate consent conditions, which could have a major impact on both cost and the ability to deliver to a particular timescale, it is essential that the party delivering the project should be responsible for obtaining required consents.

Furthermore, in determining level of risk associated with a given project and the ability to develop appropriate risk mitigation strategies, it is essential that the party who is going to deliver the project should be the party who undertakes the pre-construction activities so that they have a detailed understanding of the associated risks. If the competitive onshore transmission regime does not accommodate this, there is a risk that the third party TO will either:

- include a higher than necessary risk contingency for the uncertainties they are taking on;
- seek a higher rate of return to reflect the higher risk; or
- seek to contractually exclude such risks via "uncertainty mechanisms".

All three of the above outcomes would lead to either higher costs or higher risk for the consumer.

As noted previously, we consider there needs to be a clear functional specification setting out exactly what the third party assets must deliver and ensuring that they are compatible and integrated with the rest of the network.

Finally, we are concerned that there may be a disconnect between the flexibility that will assist 'an effective selection process' and the removal of doubt about a proposal that is sought by the Infrastructure Planning Commission and its proposed successor (IPC used for both). The rigidity sought by the planning process can tend to constrain prominent design elements and constrained elements tend to provide less opportunity for innovation, or increase the potential for delays if changes to these elements are revisited through the formal planning procedures.

Question 2: Should planning consents be in place before the selection process?

In a number of cases, it will not be possible to obtain all planning permissions prior to award of contract, for example for the Western HVDC link, there was insufficient data available on design requirements which would support any planning request. Even when primary consents are in place, Page 9 of 22



there will be a significant number of secondary consents that will be required. To manage the risk of obtaining these consents, there is significant benefit in ensuring the party who obtained the primary consents should also be responsible for obtaining the secondary consents. In obtaining the primary consents, the negotiated consent conditions can have a significant impact on both the deliverability and subsequent cost of the project. It is therefore essential that the party obtaining consents should also be responsible for the delivery of the project.

The obtaining of planning consents can also have the effect of defining the design to be delivered and so provides very limited scope for design innovation. In effect it would mean that the selection process comes down to one of determining who can construct the chosen solution for the lowest cost (i.e. a tender exercise) and who can finance the construction and subsequent ownership and maintenance of the completed assets for the lowest cost. While competition in these areas may deliver efficiencies, we consider that, as noted above, the most efficient, economic and coordinated design will result from the third party TO's involvement in the design of the network extension from the outset.

Question 3: Should land be purchased or wayleaves obtained by the incumbent TO before the selection process?

No, for similar reasons to Q2 above, the purchase of land or obtaining of wayleaves defines the design to be delivered and so reduces the scope for the third party TO to deliver innovations or efficiencies.

Question 4: What are stakeholders' views on the desirability of Ofgem seeking independent verification of the needs case and solution proposed by the incumbent TO in advance of any selection process?

This is a fundamental question about who bears the risk of making the wrong investment decision. In the current onshore regime TOs are directly exposed to the consequences of uneconomic investment decisions and inefficient delivery of infrastructure. If a third party TO is to be involved in the provision of onshore transmission extensions, it needs to be clarified what risks they will bear in the event that:

- 1. the wrong investment is chosen;
- 2. the investment is inefficiently delivered; or
- 3. the investment results in excessive operational costs (including congestion due to plant failure).

Clearly, the third party TO can and should be held fully accountable for the second and third of these (i.e. efficient delivery and efficient operation) and this will protect consumers from excessive costs arising out of poor investment decisions.

However, addressing the consequences of the first item – identifying the wrong solution - presents a fundamental dilemma. If Ofgem seeks independent verification of the needs case and the proposed solution, it is acting like a "single buyer" and making the assessment as to whether the proposed investment is the right one and is the most efficient and economic (based on lifetime costs, Capex/Opex trade-offs etc) on behalf of end consumers. In the event that any of these decisions turn out to not be the most efficient, by providing the third party TO with a Licence and the funding to deliver the project Ofgem may have fettered their ability to take any action and as a result it would the end consumer bears this risk.

If Ofgem or their consultants do not sign off the need case, this would seem to leave responsibility with a combination of the third party TO, the incumbent TO and the NETSO. It is unclear at this stage how responsibilities might be allocated between the parties since all three have some influence over the final design. However, if the NETSO or an incumbent TO were to be held liable for a third party TO's investment decision they should have the ability to challenge it where they have concerns it is not the most efficient and economic selection. Where the parties disagreed then it would be likely that Ofgem would need to arbitrate in which case once again the risk is passed to the end consumer.



Finally, we have noted that any design proposal needs to be kept under continual review as circumstances change. It is unclear whether Ofgem, the incumbent TO, the third party TO, or the NETSO is responsible for keeping the need case under review.

Question 5: Do stakeholders have a view on whether pre-construction outputs could be retained by the incumbent TO or transferred to the eventual asset owner? Is there a difference depending on the output in question?

Further reflection is needed to consider intellectual property (IP) rights. With respect to the Western HVDC solution, a number of unique solutions where offered during the pre-construction period, which allowed us to effectively increase the system benefit of the link from 1.8GW to 2.4GW at relatively little increase in costs, but the IP for the solution was owned by equipment suppliers who, due to commercial sensitivities, where not prepared to allow us to share information with any other party. Where the incumbent TO had developed a proposal that involved a particular supplier's IP then it could be problematic to try to open up the delivery of that particular design solution to third party TOs (who might include competitors of the supplier concerned).

Some pre-construction outputs may be met more quickly if discharged by the initial applicant before being handed to a third party. This is relatively common practice in normal commercial development. However, the flexibility to do this on Nationally Significant Infrastructure Projects (NSIPs) depends on the wording of the Development Consent Order (DCO) issued by the IPC.

The IPC is beginning to examine issues such as decommissioning of infrastructure as part of the consenting process. This is something that has not generally troubled previous decision makers. There is no clear pattern as yet because the number of completed DCO applications is so few, but the manner in which such long term issues are addressed in the DCO will be fundamental to this question. It is possible that the IPC may not be comfortable that a DCO is transferable to a third party (in the absence of knowing the identity of that third party and that e.g. they will have the resources to decommission the infrastructure at the end of its life and return the land to its original use).

Question 6: What kind of commercial arrangement, if any, should be used to facilitate the sharing or transfer of pre-construction outputs between an incumbent and third party TOs?

Pre-construction information represents best information available at the time, but by its very nature, it only represents an example of conditions which may exist, and as such cannot be considered as information to be relied upon. Any design which is produced in the "optioneering" stage could alter significantly as the project is developed, so that once again, information produced from the "optioneering" cannot be relied upon.

Early consultation exercises linked to the first NSIPs processed so far indicates that if a commercial transfer is intended to enable third party development of a scheme, this should be included in the proposed DCO. If it is to be included in the draft DCO it should also have been the subject of consultation with the public and those landowners affected by the scheme. The IPC has the power to reject applications for inadequate consultation on aspects of the proposal, and has already exercised its powers in this regard. As a result, it would seem to be potentially problematic for a project that had been designed and consented by the incumbent TO to then be transferred into the competitive regime without the need to revisit some aspects of the consenting process (with the consequential delay and uncertainty that this might involve).

Even if aspects of a project were shared or transferred after the DCO was issued (when the risk profile should be more attractive to the commercial sector), there could be no warranty given about the discharge of conditions attached to the DCO. These are usually particular to design details. Amendments to planning conditions are the planning risks of any acquiring developer in other developments and there is no reason to suggest that this arrangement should change for competitive transmission schemes.



Question 7: Do stakeholders consider that the staged approach we have outlined, which would allow interested parties obtain a 'light touch' licence, is appropriate?

National Grid does consider that the process of competition could be facilitated by the grant of "light licences" to potential bidders. This approach would ensure that the Authority was able to deal with Third Package certification issues at an early stage to avoid delays or unforeseen difficulties later in the process. We consider that such a licence should contain all the conditions necessary for operation of relevant assets once a bidder has been successful in a competition, but that these obligations should be, for the most part "turned off" until turned on by a direction from the Authority (as is currently the case with Section E - see Condition A7 of the standard conditions of electricity transmission licences. As such, any such light licence should also contain an appropriate condition allowing for the "switching on" of these conditions.

Question 8: Do stakeholders agree that some form of business separation arrangements will be necessary for incumbent TOs

National Grid agrees that appropriate regulatory rules need to be placed around competitions for onshore assets that ensure that both incumbents and new entrants are able to compete fairly and effectively for the new projects. However, National Grid does not consider that formal business separation arrangements will be either necessary or desirable in facilitating onshore competition. We consider that regulatory arrangements which are too stringent in requiring, for example, an incumbent to establish a separate ring-fenced bidding vehicle for such projects, rather than ensuring a "level playing field" to ensure that new entrants can adequately compete for the tendered projects, will be likely to have a perverse effect of imposing additional, unnecessary and inefficient costs on the incumbent. These costs would arise through the need to create a separate vehicle with separate staff to bid fro such projects. As such, they will unnecessarily tilt the balance against the incumbent.

In particular, National Grid would be very concerned that business separation arrangements might be imposed on incumbents which are equivalent to those in place between onshore and offshore transmission licensees. We consider that in the present case such deep business separation arrangements would not be efficient (especially since Ofgem state that it is "difficult to quantify the benefits from a greater third party role") and would go significantly beyond what is necessary to address the concerns that bidders may legitimately have that they not receive all the information that they might need from the incumbent. As such, overly formal business separation rules could exacerbate any effect that the design of the competition may have on the respective risk profiles of the incumbent and new entrants.

The key point therefore is to ensure that the incumbent TO makes all the relevant information available to prospective third party TOs (subject to any confidentiality issues – e.g. relating to "live" connection applications that are being processed.) Provided that there is full and transparent disclosure of the pre-construction outputs then no business separation issues should arise.

Question 9: What form of business separation arrangements do stakeholders feel would be appropriate for incumbent TOs?

National Grid considers that appropriate regulatory arrangements do need to be put in place to ensure that any competition works effectively for the benefit of consumers. We do not consider that such rules should necessarily change depending on the stage of the process (for example before or after consenting is undertaken) because the underlying principle which should govern the regulatory arrangements is the same. This principle should be expressed in a straightforward licence condition requiring the licensee to share all the relevant information it has on a project at the time that the Authority determines that it is appropriate to run a competition in respect of a particular project. Such licence provisions could set out in detail the areas in which the incumbent must provide a "package"



of materials for bidders and the timescales within which such information must be provided. The precise nature of the information that will be the subject matter of this obligation would depend on the point in the process at which the competition is launched: the more developed the project is before being opened up to competition, the more detailed the information that must be shared.

Alternatively, a licence condition could provide for the incumbent to provide information of a type detailed by the Authority in a direction issued at the time that it decides that a competition is warranted. This latter approach would allow for greater flexibility and ensure that there were no "gaps" in the information provided. Similar obligations could be placed on the incumbent in respect of the transfer of land rights and consents and could also be developed, provided that they would not lead to expropriation of the licensee's real or intellectual property.

The Authority could gain further assurance that the incumbent was not withholding information necessary for bidders to construct competitive bids by backing up such arrangements by a specific obligation on the incumbent licensee's compliance officer to ensure and report on compliance with these obligations.

Adopting this approach would avoid the duplication and inefficiency that formal business separation rules would bring but would provide for appropriate and targeted rules which would ensure that a competition could run efficiently and fairly.



Appendix 3

Implementing Competition in Onshore Electricity Transmission – NGET's initial thoughts on Code Changes

STC - System Operator Transmission Owner Code

Definitions	Definitions		
		Ofgem View	NGET View
Onshore transmission owner	SHETL or SPTL or such other person in relation to whose Transmission Licence the Standard Conditions in Section D (transmission owner standard conditions) have been given effect.	No change if third party TOs will be subject to standard conditions.	Agree with Ofgem view
Transmission licensees	The holder for the time being of a transmission licence.	No change.	Agree with Ofgem view
Transmission licence	A transmission licence granted or treated as granted under section 6(I)(b) of the Act.	No change.	Agree with Ofgem view
Transmission owner	An Onshore TO or an OFTO.	No change.	Agree with Ofgem view
New Category of TO			To place obligations on a specific group it may be required to create a new category of TO, this will have to be reviewed as the roles and responsibilities are developed.

Provisions			
		Ofgem View	NGET View
Schedule 2	Code procedures.	Definitions need to be amended to include reference to new transmission licensees.	Following conversations with the Authority it was understood that changes to the STCPs would take place once the roles and responsibilities are clear. It is not expected that these would be completed by April 2013.



Section B, Section 3.2	Party entry processes – sets out the need for a services capability specification, interface agreements, TO construction agreements, outages proposals and transmission investment plans.	No immediate change required but all of these elements would need to be developed for new transmission licensees.	Agree that this part of Section B will need to be reviewed but note that most of Section B will need to be examined to ensure it caters for a new transmission licensee.
Section B, paragraph 6.7.3	Groups – sets out that NGET, SPT and SHETL shall cast their votes individually and each Party shall have one vote.	Needs to be amended to recognise the existence of new transmission licensees. We envisage that the new transmission licensees would have a collective vote, similar to the arrangements in place for OFTOs, rather than one vote per party.	Agree that this part of Section B will need to be reviewed but note that most of Section B will need to be examined to ensure it caters for a new transmission licensee.
Schedule 15	Transmission interface agreement – sets out the provisions for a transmission interface agreement between an OFTO and a TO.	An equivalent interface agreement may need to be developed between an existing and new TO.	Agree that this will need to be reviewed
Section D, paragraph 8	OFTO construction securities – requires OFTOs to either prove that they meet the NGET credit rating requirement or provide an amount equivalent to 20% of the forecast construction cost/the liquidated damages liability.	Equivalent provisions may be required for new transmission licensees.	Agree that this will need to be reviewed



CUSC - Connection and Use of System Code

Definitions	Definitions		
		Ofgem View	NGET View
Relevant transmission licensee	SPTL in south of Scotland, SHETL in north of Scotland and in respect of each Offshore Transmission System the Offshore Transmission Licensee for that Offshore Transmission System.	Amendments to recognise the potential role for new transmission licensees.	Agree with Ofgem view
Transmission licences	The licence granted to NGET, SPTL and SHETL under the Act.	Amendments to recognise the potential role for new transmission licensees.	Agree with Ofgem view

Accession to the code (framework agreement)		
Ofgem View	NGET View	
Note that SPTL and SHETL are not signatories to the CUSC. This suggests there would not be any need for new transmission licensees to become CUSC signatories.	Agree that there would not appear to be any reason for new transmission licensees to become CUSC signatories.	

Provisions	Provisions		
		Ofgem View	NGET View
Section 2, paragraph 2.10	Safety rules – requires NGET and users to supply a copy of their safety rules in relation to connection sites in England and Wales. Requires relevant transmission licensees in Scotland to supply a copy of their safety rules in relation to a connection site.	These provisions may need to be extended to recognise the potential role of new transmission licensees.	Agree that this will need to be reviewed once there is more clarity around the roles and responsibilities.
Section 2, paragraph 2.11	Interface agreement – requires NGET to enter into an interface agreement with a user for connection sites and new connection sites in England and Wales and to procure that relevant transmission licensees enter into equivalent arrangements with users based in Scotland.	These provisions may need to be extended to recognise the potential role of new transmission licensees.	Agree that this will need to be reviewed once there is more clarity around the roles and responsibilities.





Section 5,	Disconnection – 6 months	These provisions may	Agree that this will
paragraphs 5.3.4, 5.4.7, 5.5.5, 5.7.3	after disconnection NGET may disconnect user equipment and the user shall remove its equipment from NGET's land in England and Wales or from the relevant transmission licensee's land in the case of Scotland. Equally, within 6 months, NGET shall remove any transmission connection assets from the users land from connection sites in England and Wales and the relevant transmission licensee shall remove any transmission connection assets from the users land in the case of connection sites in Scotland.	need to be extended to recognise the potential role of new transmission licensees.	need to be reviewed once there is more clarity around the roles and responsibilities.
Section 6, paragraph 6.7.8	Equipment (pulse data) – NGET is also required to procure that relevant transmission licensees shall give users access to this data according to the provisions in the interface agreement in relation to connection sites in Scotland.	These provisions may need to be extended to recognise the potential role of new transmission licensees.	Agree that this will need to be reviewed once there is more clarity around the roles and responsibilities.
Section 9, paragraph 9.14	Safety rules – requires NGET to procure the relevant transmission licensee in relation to connection sites in Scotland to supply users with a copy of their safety rules and local safety instructions.	These provisions may need to be extended to recognise the potential role of new transmission licensees.	Agree that this will need to be reviewed once there is more clarity around the roles and responsibilities.
Section 14	Charging methodologies – the introduction sets out that the document describes the methodology that NGET employs to levy charges for the use of the NETS on behalf of NGET, SPT and SHETL. It also includes details of the connection assets that each of the licensees own as a percentage of the total NETS and their published price control average annual opex.	Some changes to these definitions may need to be made to recognise the potential for new transmission licensees to have a role in the delivery and ownership of transmission assets.	Agree that this will need to be reviewed once there is more clarity around the roles and responsibilities.



Grid Code

Definitions	Definitions		
		Ofgem View	NGET View
Scottish Transmission System	Collectively SPTL's Transmission System and SHETL's Transmission System and any Scottish Offshore Transmission Systems.	May need to be amended to recognise the potential for new transmission owners, particularly if a third party transmission system could straddle Scotland and England and Wales.	Agree that change is likely to be required to recognise new transmission owner
Transmission Site	In England and Wales, means a site owned by NGET in which there is a Connection Point. In Scotland and Offshore, means a site owned by a Relevant Transmission Licensee in which there is a Connection Point.	May need to be amended to recognise the potential for new transmission owners. Could be addressed for Scotland by a change to the definition of relevant transmission licensee.	Agree that change is likely to be required to recognise new transmission owner
England and Wales Transmission System	Collectively NGET's Transmission System and any England and Wales Offshore Transmission Systems.	May need to be amended to recognise the potential for new transmission owners.	Agree that change is likely to be required to recognise new transmission owner
Onshore Transmission Licensee	NGET, SPT, or SHETL.	May need to be amended to recognise the potential for new transmission licensees.	Agree that change is likely to be required to recognise new transmission owner
Relevant E&W Transmission Licensee	As the context requires NGET and/or an E&W Offshore Transmission Licensee.	May need to be amended to recognise the potential for new transmission licensees.	Agree that change is likely to be required to recognise new transmission owner
Relevant Scottish Transmission Licensee	As the context requires SPT and/or SHETL and/or a Scottish Offshore Transmission Licensee.	May need to be amended recognise the potential for new transmission licensees.	Agree that change is likely to be required to recognise new transmission owner





Relevant	Means SPTL in its	This is potentially the	Agree with the Ofgem
Transmission	Transmission Area or	biggest amendment	view, change is likely to
Licensee	SHETL in its Transmission	needed to recognise	be required. May need
	Area or any Offshore	the potential for new	to identify NGET and
	Transmission Licensee in	transmission licensees	new transmission
	its Transmission Area.	to have a role in	owner in the definition.
		transmission activities.	Could require changes
			elsewhere in the Grid
			Code to ensure the
			NGET requirements
			remain clear. There
			are aspects of the Grid
			Code that place
			obligations on RTLs.
			These have been
			drawn out in more
			detail below.

Under GC.13 it is recognised that the Relevant Transmission Licensees are not parties to the Grid Code. However there are obligations that will be performed by the Relevant Transmission Licensees in accordance with the relevant obligations under the STC.

	Provision	NGET View
OC8	Safety Co-ordination	OC8 contains procedures in respect to the E&W Transmission Systems, Scottish Transmission Systems and Offshore. May need separate Safety Coordination procedures for new transmission owners.
Operating Code No. 8 Appendix 1 ("OC8A")	Safety Co-Ordination In Respect Of The E&W Transmission Systems Or The Systems Of E&W Users	If the definition for Relevant E&W Transmission Licensee is amended to include new transmission owners, this section will apply to them.
Operating Code No. 8 Appendix 2 ("OC8B")	Safety Co-Ordination In Respect Of The Scottish Transmission Systems Or The Systems Of Scottish Users	If the definition for Relevant Scottish Transmission Licensees is amended to include new transmission owners, this section will apply to them.
OC7.6	Procedure In Respect Of Operational Switching In Scotland And Offshore	If the definition for Relevant Transmission Licensee includes new transmission owners, this section will apply to them.
OC9.4	Black Start	If the definition for Relevant Scottish Transmission Licensees is amended to include new transmission owners, this section will apply to them. New transmission owners could have obligations placed on them through a Local Joint Restoration Plan.
OC9.5	Re-Synchronisation Of De- Synchronised Islands	If the definition for Scottish Transmission System is amended to include new transmission owners, this section will apply to them. New transmission owners may have obligations placed on them through the OC9 De-Synchronised Island Procedure.





There are additional areas of the Grid Code that apply to Relevant Transmission Licensees. Identified in GC.4.2 (b) and GC.4.3(c) (xi).

	Provision	NGET View
PC.3.4	NGET may provide to the Relevant Transmission Licensees any data which has been submitted to NGET by any Users pursuant to the following paragraphs of the PC. For the avoidance of doubt, NGET will not provide to the Relevant Transmission Licensees, the types of data specified in Appendix D. The Relevant Transmission Licensees' use of such data is detailed in the STC.	Need to consider the data that would be shared with new Transmission Owners.
	PC.A.2.2 PC.A.2.5 PC.A.3.1 PC.A.3.2.1 PC.A.3.2.2 PC.A.3.3 PC.A.3.4 PC.A.5.1 PC.A.5.1 PC.A.5.2 PC.A.5.3.1 PC.A.5.3.2 PC.A.5.4.1 PC.A.5.4.2 PC.A.5.4.3.1 PC.A.5.4.3.1 PC.A.5.4.3.1 PC.A.5.4.3.3 PC.A.5.4.3.4 PC.A.5.4.3.4 PC.A.5.4.3.4 PC.A.5.4.3.4 PC.A.5.4.3.4	
PC.3.5	In addition to the provisions of PC.3.4 NGET may provide to the Relevant Transmission Licensees any data which has been submitted to NGET by any Users in respect of Relevant Units pursuant to the following paragraphs of the PC. PC.A.2.3 PC.A.2.4 PC.A.5.5 PC.A.5.7 PC.A.6.2 PC.A.6.3 PC.A.6.3 PC.A.6.4 PC.A.6.5	Need to consider the data that would be shared with new Transmission Owners.
PC.6.2	PC.A.6.6 In relation to Scotland, Appendix C lists the technical and design criteria applied in the planning and	Changes may be required to clarify how this may apply to new transmission owners in Scotland.



	development of each Relevant	
	Transmission Licensee's	
	Transmission System.	
PC Appendix A	Planning Data Requirements	Unlikely to require any changes
PC Appendix C	Planning and design of the SPT and SHETL Transmission Systems is based generally, but not totally, on criteria which evolved from joint consultation among various Transmission Licensees responsible for design of the National Electricity Transmission System.	Changes may be required to clarify how this may apply to new transmission owners in Scotland. (Referred to in PC.6.2)
PC Appendix E	Offshore Transmission System Technical And Design Criteria	Unlikely to require any changes
CC.6.1	National Electricity Transmission System Performance Characteristics	Unlikely to require any changes but this will have to be reviewed once there is more clarity around the roles and responsibilities.
CC.6.2	Plant And Apparatus Relating To Connection Site And Interface Point	Unlikely to require any changes
CC.6.3	General Generating Unit (And OTSDUW) Requirements	Unlikely to require any changes
OC2.3.2	NGET may provide to the Relevant Transmission Licensees any data which has been submitted to NGET by any Users in respect of Relevant Units pursuant to the following paragraphs of the OC2. OC2.4.1.2.1 (a) OC2.4.1.2.1 (j) OC2.4.1.2.2 (a) OC2.4.1.2.2 (i) OC2.4.1.3.2 (a) OC2.4.1.3.2 (b) OC2.4.1.3.3 OC2.4.2.1 (a)	Need to consider the data that would be shared with new Transmission Owners.
GC.11	Governance Of Electrical Standards	Unlikely to require any changes





NETS Security and Quality of Supply Standard (NETS SQSS or SQSS)

Ofgem View

The specific references to NGET, SPT and SHETL in the SQSS largely relate to the areas in which they operate and the differences in terms of technical specification. It does not therefore seem that many changes to the provisions of this code would be required.

NGET View

We believe that some minor changes to the SQSS definitions may be needed to take account of the potential for new onshore TOs – most obviously to the definition of "Onshore Transmission Licensee" (this currently specifies National Grid and the two Scottish transmission licence holders). This should probably be aligned with the definition of "Offshore Transmission Licensee" (anyone holding a transmission licence). Such an approach would imply changing the definition of Onshore Transmission Licensee from:

"NGC, SPT and SHETL" [NOTE: An approved change, yet to be implemented will amend NGC to NGET in the Onshore Transmission Licensee definition]

Τo

"Means the holder of a Transmission Licence in respect of an onshore transmission system granted under section 6 (1) (b) of the Electricity Act 1989 (as amended by the Utilities Act 2000 and the Energy Act 2004)"

It is also worth noting that throughout the SQSS reference is made to the incumbent TO areas (England and Wales [NOTE: A housekeeping modification is going to change 'England and Wales' to 'NGET's area'], SPT's area, and SHETL's area). The inclusion of a new TO will mean that this will need to be reviewed once there is more clarity around the roles and responsibilities. NGET will give further consideration to the options available to address this issue.