

## **Potential enhanced electricity transmission owner (TO) incentives – potential TO incentives for timely grid connection and minimisation of network constraint costs**

Scottish and Southern Energy (SSE) welcomes and supports National Grid's work to understand the impact of TO activities on system operation costs. We agree that it is important that this issue is assessed as part of the Transmission Access Review project, and potential mechanisms to address weaknesses in the current arrangements are identified and implemented. We set out our specific comments on the areas identified in the consultation document below.

### **Investment incentives for grid connections**

The consultation document invites views on amending the existing incentives on transmission licensees with the intention of enhancing the incentive to encourage earlier completion of local transmission infrastructure works. As we describe below, given the existing obligations on transmission licensees, it is not clear to us what the purpose of such an enhanced incentive would be.

Under the current access arrangements (including Interim Connect and Manage), in preparing an offer of terms for connection the National Electricity System Operator (NETSO) and TOs seek, as far as possible, to meet the applicants proposed connection date. This principle is enshrined in the transmission licence; for example in the NETSO's Standard Licence Condition C8 (Requirement to offer terms) (note we have added the underlining for emphasis):

3. On application made on or after the BETTA go-live date by any person the licensee shall (subject to paragraph 6) offer to enter into a bilateral agreement and/or a construction agreement relating to connection or modification to an existing connection and such offer shall make detailed provision regarding:

...

- (e) the date by which any works required to permit access to the national electricity transmission system (including for this purpose any works to reinforce or extend the licensee's transmission system) shall be completed (time being of the essence unless otherwise agreed by the person seeking the connection);

Equivalent provisions are set out in Standard Licence Condition D4A (Obligations in relation to offers for connection etc) of the Scottish transmission licensees.

In meeting this obligation, licensees balance their general duty to develop an efficient, co-ordinated and economical system of electricity transmission with the connection aspirations of the applicant. In some instances, the transmission licensees might determine that it is not possible to meet the applicants proposed connection date if, for example, the wider system needs reinforced or the cost of installing assets to meet the specified date is prohibitively expensive compared with a later date. In these situations, it is possible (through the Modification Application process) for the applicant to request that their local transmission infrastructure works are advanced. Again, in accordance with their licence obligations, the NETSO and TOs will seek to meet the users preferred date subject to, for example, the availability of materials, resources and network outages.

If local transmission infrastructure works can be advanced, then the applicant is required to make an one-off payment for additional costs incurred by the transmission licensees. To be clear, this payment is only for the difference between the original efficient cost of those works and the new higher cost associated with advancing the works. It is, in our view, appropriate that the applicant is required to make this payment for the advanced service which that applicant has requested for their own benefit. For the generality of users to be exposed to the higher cost of advancing the works would undermine the principle of developing an efficient and economic system.

Given these existing arrangements, it is not clear to us what an enhanced incentive would be intended to achieve. Licensees are already obliged to meet, as far as possible, applicants' preferred connection dates. Licensees already have a funding allowance that rewards the licensees for construction of local transmission infrastructure works at less than the average efficient unit cost of new connections. The current approach to advancing local works, driven by users' requests, is proven and effective, and does not expose the wider customer base to additional costs.

In conclusion, we believe that the existing incentives place an appropriate balance between generation and demand users in the allocation of the costs of providing timely connections. Consequently, we do not believe there is a compelling need to revisit the existing incentive arrangements.

### **SO/TO interface issues**

The consultation document focuses on two areas of the interaction between the NETSO and TO that might impact on constraint costs: outage co-ordination arrangements; and SO driven capital expenditure. We comment on each of these areas below.

### *Outage co-ordination arrangements*

Outages are not optional. All transmission licensees have to take circuit outages on their system to allow for essential maintenance and reinforcement. Consistent with their general duties as a transmission licensee, such outages must be planned and undertaken in an efficient, co-ordinated and economical manner.

The issue raised in this consultation document is the role that forecast constraint costs should factor into outage co-ordination arrangements. The TO can provide the network costs associated with different outage arrangements with some certainty. The NETSO must then forecast potential operational costs associated with each outage arrangement and come to a view on the overall costs of the different outage arrangements. This is not an easy assessment for the NETSO to undertake. For example, the NETSO might ask the TO to proceed with a higher cost outage only to find out that constraint costs in the event are negligible. However, given that constraint costs arising from outages are ultimately paid for by all consumers, there can be no doubt that it is critical that the NETSO undertakes this assessment to ensure the lowest overall cost and effect of an outage.

Currently, the NETSO only undertakes such detailed assessment of the overall (network plus operational) cost associated with outages in England and Wales. National Grid does this as, through its joint GB-wide SO and England and Wales TO role, it can trade-off the costs of different outage arrangements against the income associated with lower operational (constraint) costs. Hence, National Grid has a clear financial benefit in optimising overall costs, taking into account manpower disruption to their TO business, risk to their plant and constraint incentive income. Consequently, it is possible to allow a manpower contingency into their TO business on the basis that the rewards realised through lower constraint costs will more than cover the cost of this resource contingency.

There is no reason that the NETSO should treat the England and Wales TO any different from the Scottish TOs. If it is possible to determine the lowest overall cost solution for outages in England and Wales, then it should also be possible for the NETSO to do that for outages in Scotland. The arrangements to exchange information already exist under the System Operator – Transmission Owner Code (STC), as does the ability for the NETSO to make changes to the outage programme. There is no barrier, in our view, to the NETSO being able to determine the lowest cost outage solution and then direct that solution across GB.

We do recognise that there is a cost implication to the NETSO of undertaking overall cost assessment in Scotland. TOs are obliged to undertake their activities efficiently – in most instances, this means the lowest cost solution regardless of the operational impact. If the NETSO identifies that an outage arrangement of higher cost to the TO has a lower overall cost then it is required to reimburse the TO for additional costs incurred.

TOs can recover outage change costs at a cost reflective rate on a case-by-case basis, typically at short time. This approach does not allow for forward planning and, it is important to note that,

late cancellation of outages can have perverse consequences. For example, since the work cancelled will be required to be carried out at a later date, whole programme disruption can occur with some work being forced into another year.

Outage nesting, reduced emergency return to service (ERTS) times, outside normal hours working, increased manpower resource and smart working (such as temporary by-passes) all require additional TO manpower. This increased manpower is difficult to quantify or deliver on a short term case-by-case basis as there is a scarce UK manpower base where experienced power engineers are in increasingly higher demand. Typically, TOs manpower is fully committed to the day-to-day activities of basic connections, infrastructure projects and maintenance. As National Grid's experience in England and Wales demonstrates, moving towards the provision of contingency manpower for the purposes of lowering constraint (and hence overall) costs does increase the costs of TOs. Although the suggestion of a 'cost plus' approach is helpful, this does not address this issue of forward planning and including additional manpower in the TOs cost base.

For outage co-ordination arrangements to be effective, the NETSO needs to both engage in overall cost assessments across GB and undertake this work at year ahead or longer. Tripartite planning with affected generators, where appropriate, should be incorporated into this process. Where the NETSO recognises the need for the TO to have contingency resource available, this needs to be advised to the TO in good time. Additional costs incurred by the TO should be paid by the NETSO and included in the overall system operation costs subject to the SO incentive regime.

The current SO incentivisation of the outage change allowance does not achieve this. As is described in the consultation document, the current approach has no incentive properties and hence been ineffective. We support fundamental change of this approach that, importantly, increases the scope of the SO incentive in both time and cost.

#### *SO driven capital expenditure*

Capital expenditure on the transmission network with the objective of reducing overall network plus operational costs is essential to achieving an efficient, co-ordinated and economical system of electricity transmission. Such SO driven capital expenditure has historically occurred, both for stand-alone investments or modification to proposed load-driven investments, but has been inhibited by the uncertainty over cost recovery arrangements.

We fully support the proposal for a ring-fenced capital expenditure allowance that can be used for SO driven projects, and drawn-down on a case-by-case basis. Such an allowance should apply across GB and be initiated under existing STC arrangements whereby (i) the NETSO requests that the TO undertake a study of possible capital solutions to a operational constraint; (ii) the NETSO makes an assessment of the overall cost of the proposed solutions; (iii) the

NETSO requests that the TO undertakes the investment; and (iv) the SO driven capital expenditure allowance is triggered.

### **Aligning SO and TO incentives**

The consultation document puts forward a number of possible models by which TOs could be exposed to, and hence incentivised in relation to, operational constraint costs. The rationale for proposing such an incentive regime is clearly explained in the document. While this might appear superficially very attractive, the consequence of exposing network owners to operational costs is to undermine one of the fundamental tenets of the market arrangements in GB that there is separation (through the NETSO) between the market and the physical network. Hence, we would be extremely concerned if these models were to be pursued without detailed consideration of wider structural impacts.

In addition, it is not clear to us that incentives based on exposing TOs to operational constraint costs would have a more positive impact on overall costs than the NETSO undertaking an overall cost assessment (as described above). As is described in the consultation document, TOs have very little control or impact on operational constraint costs and, rightly, do not have information on the actions of users of the network. In contrast, the NETSO has full oversight of the network and so is well placed to forecast constraint costs and trade-off outage options proposed by the TO. This issue needs further work to understand the objectives of any incentive arrangements, potential perverse consequences, and the deliverability of the objective.

This is a very difficult and complex area; in which there is probably no right answer. We fully support National Grid in raising this issue, and agree that it warrants further detailed investigation and consultation. A new incentive arrangement might be the outcome of this detailed analysis. As is recognised in the consultation, this would have a significant impact on the way TOs conduct their business. Consequently, we would support this issue being taken forward as a work stream at Transmission Price Control Review 5.