Electricity transmission network reliability incentive scheme
Initial Proposals

NGT response

1. Summary

In general, we support the development of the incentives and believe that the implementation of an incentive scheme to maintain a high standard of reliability on the transmission system would enhance the regulatory framework by removing a "regulatory gap". We will continue to work with Ofgem to ensure the implementation of the incentive arrangements on 1 January 2005.

Whilst we broadly support the design of the scheme, we believe the following detailed features of the scheme should be considered:

- use of a two part scheme to recognise both annual and individual losses;
- symmetry in terms of potential reward and penalty;
- increased width of deadband, extending above and below the historical average;
- increasing the level at which NGC would incur maximum loss; and
- specific exclusion of force majeure events.

These features are considered in more detail in the following sections of this response. Sections 2, 3 and 4 deal with the structure, targets and scope of the proposed scheme respectively. Section 5 briefly discusses other issues regarding the implementation and longer term development of the scheme.

2. Structure of the proposed scheme

2.1. Single part nature of proposal

Firstly, we welcome Ofgem's proposal to allow NGC to benefit from improved performance, as well as to be penalised for declining performance. We believe that the potential to reward success, as well as penalise failure, is an important feature of a well designed incentive scheme.

We note that Ofgem have proposed a single incentive scheme based on the annual level of unsupplied energy. We believe that this proposed structure is vulnerable to missing the impact of certain events. The single scheme, as proposed, would deal well with the historical incidences of loss of supply appropriately, but may not deal with all possible future events as appropriately. For example, a loss of supply event could affect a large city, resulting in 200MWhr of unsupplied energy. If this were the only incident occurring in the year, under the proposed scheme NGC would be correctly rewarded for achieving a below average level of annual unsupplied energy – however, in this example, the impact of the single event would not be recognised by the proposed form of the scheme.

We suggest that an alternative could be to adopt a two part scheme, one part which would incentivise NGC on the annual level of unsupplied energy, and one which would capture the worst single loss event during the year. Such a scheme could be designed to capture events of the type described above, such that, in the example described, NGC would be rewarded for the good annual performance, whilst being penalised for the disruption of the single event. Clearly, to get the right balance of risk and reward it would be important to modify the annual scheme if the single largest loss scheme was also adopted. We believe that such a scheme is worthy of further consideration, possibly as part of the longer term development of the incentive arrangements.

2.2. Use of revenue neutral deadband

With regard to Ofgem's proposed scheme, we strongly support the use of a deadband. The amount of unsupplied energy in any year varies around an expected outturn, as the amount of unsupplied energy in each event is a function of a number of factors. These include the location of the event, the time of year and day of the event, and the cause of the event. Small year-on-year differences in the amount of unsupplied energy do not, therefore, necessarily imply an improvement or deterioration in NGC's performance. It is not appropriate, therefore, that small differences in annual loss of supply performance around average performance should significantly alter whether NGC makes a profit or loss under the incentive arrangements. The use of a significant deadband allows the scheme to differentiate between performance which is clearly better than or worse than average. Our comments on the proposed targets defining the deadband are contained in the next section of this response.

2.3. Rewards and penalties of proposed scheme

We believe that the rewards and penalties of the incentive scheme should be symmetrical. In light of NGC's status as a world leader in terms of unsupplied energy as discussed above, we believe that it should be offered an equal opportunity to benefit from improving on its high performance as it is exposed to loss for deteriorating on that performance. In particular, we believe that the proposal to expose NGC to a potential loss of up to 1.5% of its revenue is excessively punitive, and that a symmetrical scheme, offering a potential reward or loss of up to ±1% of revenue would be more appropriate.

3. Targets of proposed scheme

3.1. Method of setting target

We agree that the method adopted to set the incentive scheme target is appropriate. Given the low level and annual variability in annual unsupplied energy, setting a target based on NGC's average performance would appear to be appropriate. In addition, as NGC's performance in terms of unsupplied energy compares well by international standards, we believe the incentive should be designed to maintain NGC's high performance, allowing NGC to

benefit from any improvement on that performance. The use of the average performance would incentivise NGC to continue to perform at that level or better, maintaining its position as a world leader.

3.2. Targets defining deadband

We do not believe that the deadband is wide enough to function properly. As discussed above, the purpose of the deadband is to differentiate between above and below average performance in determining whether NGC should profit or lose under the incentive. However, Ofgem's proposal of a deadband with a width of only 10% of the average annual unsupplied energy does not sufficiently take the annual variability into account. For example, the standard deviation of annual unsupplied energy over the last 11 years is almost the same as the average annual loss of supply, suggesting that the deadband should be considerably wider.

In addition, the positioning of the deadband, below the average annual level of unsupplied energy, means that NGC would be penalised for performing slightly above the average level, but not benefit until it is more than 10% below the average level. This does not appear to recognise NGC's status as a world leader in terms of unsupplied energy.

We believe, therefore, that the deadband should be at least twice as wide as that proposed by Ofgem, spread equally both above and below the average. This would result in the band of revenue neutrality extending from 230MWh to 280MWh per annum.

3.3. Collar level of proposed scheme

We believe that the level of unsupplied energy at which NGC would be exposed to the maximum loss of 1.5% of transmission network revenue is punitively low. The level of 600MWh, at which the maximum penalty would be incurred, equates to less than 0.0002% of total supplied energy in any year. This level of unsupplied energy as a percentage of total energy supplied is less than half of that seen on average on other national transmission networks representative of the developed world, as shown in figure 8 of the consultation document. The combination of the relatively low level, by international standards, at which the maximum loss is incurred, and the magnitude of the proposed maximum penalty, seems particularly severe.

4. Scope of the scheme

4.1. Exclusions from incentive arrangements

Force majeure provisions

We strongly support the general principle of excluding certain events from the incentive scheme, consistent with the exclusion of such exceptional events from the loss of supply incentives that apply to DNOs. Exposure to incidences of loss of supply caused by events that are clearly beyond NGC's

control would result in inappropriate incentives on NGC. We support the exclusion of those events identified in the consultation paper. The reasons why we believe each of these events should be excluded are detailed briefly below.

However, we strongly believe that there should be an explicit exclusion for force majeure events. As stated in paragraph 3.20 of the consultation document, supply interruptions caused by exceptional events are excluded from the DNO incentive schemes, as their schemes aim to incentivise DNOs on those events that are within their control. The types of event covered by force majeure provisions, such as civil unrest, threat of war or acts of terrorism, are clearly beyond NGC's control, and should be excluded from any incentive arrangements.

The DNO's incentive arrangements allow them to claim an adjustment for events which they believe are exceptional and have had a significant impact on their performance[1]. We suggest that the adoption of provisions consistent with those applied to the DNOs. This would provide sufficient protection for NGC, enabling it to apply for an adjustment in the event of an incident such as a terrorist attack, whilst providing Ofgem with the ability to determine if such an adjustment is justified.

Extreme Weather

Clearly NGC cannot control the occurrence of **severe** weather events, and therefore NGC should not be penalised for the volume of supply lost resulting from such an event. We support the use of a threshold level of 50 faults in a day to define a day where a severe weather event has occurred. Our analysis of historical data clearly indicates that on all days where more than 50 faults have occurred, the faults were related to the occurrence of a severe weather event. Events of this severity have been very rare over the last 20 years.

Events affecting 3 customers or less

Users applying to connect to the transmission system are able to request a variation from the normal standard of connection that NGC would normally provide in accordance with the Security and Quality of Supply Standards (SQSS)[2]. As a result, a number of users have opted for a lower standard of connection (i.e. fewer connection assets) in order to reduce the connection charges that they are required to pay to NGC. These users are at a greater risk of interruption. In reporting loss of supply statistics under Condition C17 of the Transmission Licence, NGC reports events affecting those separately. Prior to 2004 such losses were reported under a category of "anomalous losses". In 2004, Ofgem requested that NGC change it's reporting to identify events "affecting 3 customers or less".

1 Page 9, Electricity Distribution Quality of Service Report 2002-03, July 2004,
http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/7685_149_04_quality_of_service_report.pdf

2 Variation to connection design for demand users is covered under paragraphs 4.12 to 4.16 of NGC's Security and Quality of Supply Standards (SQSS)

As this broadly encompasses the reporting of events affecting those users who can exercise choice over the standard of their connections, we support the exclusion of such events from the incentive proposals. Were interruptions to such users included, NGC would be perversely incentivised to invest in additional assets at those connections where users have chosen a lower standard and, as a consequence pay lower charges, in order to reduce the exposure under the incentive scheme.

Shortage of generation

We support the exclusion of loss of supply events caused by a lack of sufficient generation. As stated in the consultation document, NGC's role as system operator does not extend to ensuring that there is sufficient generation available to meet demand. We agree with Ofgem's conclusion that it would not be appropriate to penalise NGC for interruptions occurring due to a lack of generation.

Commercial disconnection

We agree with Ofgem's proposal to exclude interruptions occurring as a result of a disconnection being carried out under sections 5.3-5.5[3] of the CUSC. It would clearly be inappropriate to expose NGC to a potential penalty under the incentive scheme for properly applying the terms of the CUSC that are there to protect the commercial and technical interests of both NGC and users as a whole.

User requested disconnection

We agree that any interruption occurring due to a request by a user notified under the terms of OC7 of the Grid Code, the operation of a user's protection equipment, or the emergency de-energisation by a user under section 5.2.2 of the CUSC should be excluded from the incentive arrangements. Such provisions are in place in order to allow users connected to the transmission system to de-energise their equipment in order to protect the health and safety of individuals and the user's equipment. It would clearly be inappropriate to expose NGC to a potential penalty under the incentive scheme for allowing such requests or for the operation of a user's protection equipment.

We also believe that there are certain circumstances where NGC may need to carry out an emergency de-energisation of a connection to a user that should be excluded from the incentive arrangements. These events are captured under section 5.2.1 of the CUSC, which gives NGC to right to de-energise a user's equipment if, in the reasonable opinion of NGC, it is necessary to avoid the occurrence of injury or material damage to any person, the user's system or the transmission system. Such events can occur where, for example, a member of the public climbs a transmission tower. In such circumstances,

3 Sections 5.3 – 5.5 of the CUSC describe NGC's entitlement to de-energise a user in the event that the user has failed to pay charges, or is in breach of a bilateral agreement, CUSC or Grid Code.

NGC may be required to switch out a transmission circuit in order to allow emergency services to act to protect the individual from injury. Such circumstances are rare, and could be captured under a provision which allowed NGC to claim an adjustment for exceptional events, as suggested above.

4.2. Arrangements for Scotland

We strongly support Ofgem's statement that the incentive should be related to NGC's transmission owner (TO) activities. The majority of loss of supply incidents relate to the commissioning, maintenance and health of transmission assets, which are the responsibility of the TO. It is appropriate, therefore, that the incentive should apply to NGC's transmission network revenue restriction in relation to its ownership of the transmission assets in England and Wales. If similar arrangements are to be put in place to cover Scotland, it is appropriate that those arrangements should apply to the TOs in Scotland.

5. Other issues

5.1. Implementation of the scheme

In order to implement the scheme from 1 January 2005, the transmission licence will need to be modified. As stated in the initial proposals consultation, Ofgem intend to consult on the proposed modifications to the transmission licence in November 2004. In developing these licence modifications it will be important to consider the timing of any adjustments to NGC's transmission network allowed revenue, the charging implications of any increase or decrease in revenue due to the incentive arrangements, and the treatment of any over or under recovery against the incentive adjustments.

5.2. Longer term development of incentives

We note Ofgem's intention to review and refine the incentive arrangements as part of the development of NGC's next price control. We agree that this will be an appropriate point to review the performance of the incentive arrangements. We also believe it will be appropriate to review the incentive arrangements at this point because of the likely increase in the level of activity in asset replacement and reinforcement on the transmission system during the next price control.

6. Conclusions

We support the development of an electricity transmission network reliability incentive scheme for transmission owners in Great Britain. We also broadly support the design of the scheme, but believe that the following detailed features of the scheme should be considered:

- use of a two part scheme to recognise both annual and individual losses;
- symmetry in terms of potential reward and penalty;

- increased width of deadband, extending above and below the historical average;
- increasing the level at which NGC would incur maximum loss; and
- explicit exclusion of force majeure events.

NGT are committed to working with Ofgem to develop and implement the incentive arrangements by 1 January 2005.