nationalgrid

CONCLUSIONS REPORT

Modification Proposal to the Connection Charging Methodology

GB ECM-01

One-off Charges for System to Generator Intertripping Schemes

14 October 2005

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1. INTRODUCTION

A consultation document for modification proposal GB ECM-01 was issued on 15 July 2005. The document set out for consultation National Grid's proposed modification to the Statement of the Connection Charging Methodology to take account of the CUSC Amendment Proposal CAP076[1] Treatment of System to Generator Intertrips, which was approved on 10 June 2005. CAP076 improves and clarifies the contractual framework and remuneration for System to Generator Intertrips.

The modification proposal would modify the Statement of the Connection Charging Methodology to accommodate the clarification and categorisation of Generator Intertripping schemes. The proposed wording of Paragraph 3.2 of the Statement of the Connection Charging Methodology can be found in Appendix 1 of this document. Comments on the modification proposal were invited by Friday 12 August 2005.

2. TERMS OF THE ORIGINAL PROPOSED MODIFICATION

Description of proposed modification to the Statement of the Connection Charging Methodology

In accordance with the Statement of the Connection Charging Methodology, 'One-Offs' are defined as charges levied on Users for works on the electricity transmission system associated with the provision or modification of a connection, which although directly attributable to the connection, may not give rise to additional connection assets. Liability for such charges is established with the principles laid out below:

- Where a cost cannot be capitalised into either a connection or infrastructure asset, typically, a revenue cost.
- Where a non-standard incremental cost is incurred as a result of a User's request, irrespective of whether the cost can be capitalised.
- Termination Charges associated with the write-off of connection assets at the connection site.

In August 2004, National Grid proposed a CUSC Amendment Proposal CAP076 Treatment of System to Generator Intertrips. The amendment, which was approved on 10 June 2005, improved and clarified the contractual framework and remuneration for System to Generator Intertrips. Consequently, National Grid proposes to modify the Statement of the Connection Charging Methodology to accommodate the clarification and categorisation of Generator Intertripping schemes.

Explanation of the issue

Following the categorisation of operational intertripping schemes as part of the CAP076 change, National Grid has assessed each type of Category against the 'one-off' principles to determine if the scheme should be charged as a 'one-off'.

[1] CAP076 Amendment Proposal and Working Group Report are available on the CUSC website at http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments

This section aims to describe the categories of the intertrips with the assessment against the 'one off' principles.

Category 1
A System to Generator Intertripping Scheme arising from a Variation to Connection Design consistent with the criteria specified in the Security and Quality of Supply Standard (SQSS) as established pursuant to Condition 12 of the Transmission Licence.

As Category 1 involves the installation of an intertrip to facilitate the early connection of a generator to the transmission network, National Grid is proposing to charge for the installation of the intertrip on a one-off basis. This Category may also apply to a generator requesting a Variation to Connection Design, which will also result in a one off charge for the intertrip installation. This is consistent with the Security and Quality of Supply Standard (SQSS) requirement, which states that a Variation to Connection Design must not result in additional costs to any other User. Furthermore, it is also consistent with the first 'one-off' principle where a non-standard incremental cost is incurred as a result of a User's request, irrespective of whether the cost can be capitalised.

Category 2
A System to Generator Intertripping Scheme required to alleviate an overload on a circuit that connects the group containing the Generator to the rest of the System. The operation of the Scheme means any MW reduction from the Generator has exactly the same MW reduction on the circuits that connect the Generator to the rest of the System (when any system losses or third party system effects are ignored).

Intertrips installed under Category 2 will be to protect local circuits from overloads resulting from outages on local circuits. As there is a wider system security benefit with the installation of the scheme under this Category, and because the circuits involved are infrastructure rather than connection, National Grid is proposing to recover costs for the intertrip installation via the Transmission Network Use of System (TNUoS) revenue recovery mechanism.

Category 3
A System to Generator Intertripping Scheme installed as an alternative to reinforcement of a third party system, where the Scheme removes overloads on the third party system e.g. DNO system.

A new generator could under certain circumstances cause overloads on a third party's network. In this instance, if the identified solution requires work on the third party's network, the generator would be expected to contract with the third party to undertake the required reinforcement work. This would normally be identified during National Grid's assessment of the generator's application, and National Grid would impose a condition of the connection offer that the third party works are undertaken to reinforce the relevant network. The generator would then be expected to contract with the third party concerned and ensure the necessary works are carried out for third party system reinforcement. Costs for such third party reinforcement work would be subject to the agreement between the generator and the third party but would normally be expected to be borne by the generator. As the installation of a Category 3 intertrip would be an alternative option to third party reinforcement works and to ensure that all works triggered by the need to protect a third party's assets are treated as consistently as possible, National Grid is proposing that intertrips installed under this Category be charged to the generator

as a 'one-off'. This would also be consistent with the first 'one-off' principle, as it would not be appropriate for the intertrip cost to be capitalised into either a connection or infrastructure transmission asset.

Category 4
A System to Generator Intertripping Scheme installed at the request of National Grid under circumstances when the Generator would be disconnected from the Transmission System and where the use of such schemes would be beneficial in order to facilitate the timely restoration of critical circuits.

Under Category 4, the intertrip would be installed to allow restoration of critical circuits on the transmission system. As there is the wider benefit of system security with the installation, National Grid are proposing to recover costs for the intertrip via the TNUoS revenue recovery mechanism.

Justification for proposed modification

This proposed change to the Connection Charging Methodology is required to identify how National Grid proposes to charge for the four categories of intertrip schemes defined in CAP076. The change is therefore required to meet the Relevant Objective in Licence Condition C5 5(c) that the Connection Charging Methodology properly takes account of the developments in the transmission licensees' transmission businesses.

The 'one-off' charges proposed to be levied for Category 1 and 3 type operational intertrip schemes would be calculated in accordance with Section 3.4 of the Statement of Connection Charging Methodology. The charge would therefore be based on the costs incurred and would therefore meet the Relevant Objective in Licence Condition C5 5(b): that charges reflect, as far as reasonably practicable, the costs incurred by transmission licensees in their transmission businesses.

Suggested alternatives

None.

Implementation date

The implementation date for the proposed change is 1 December 2005.

Proposed changes to the Statement of the Connection Charging Methodology

It is proposed that Paragraph 3.2 of the Statement of the Connection Charging Methodology is expanded as per Appendix 1.

Impacts on other Industry Documents

There are no impacts on other industry documents.

3. RESPONSES TO THE MODIFICATION PROPOSAL

Comments and views were invited on all the issues raised in the Modification Proposal up to Friday 12 August 2005. National Grid received three responses, which are published on the National Grid Charging website.[2]

Two of the respondents were in broad agreement with the modification proposal, but sought clarification on some points. One respondent sought greater clarification of the principles under which one-off costs are made.

Payment for stranded assets

One respondent noted that with Category 1 and 3 intertrips, there could be issues surrounding interactive offers and ensuring that a connecting party did not end up paying for stranded assets. The respondent requested clarification of whether the first applicant would be required to underwrite the intertrip costs triggered by a subsequent application should that subsequent application be withdrawn.

National Grid Response

Category 1 intertrips arise either from a variation to connection design at the User's request or to facilitate the early connection of a generator to the transmission network at the User's request. Category 1 intertrips are therefore not likely to be interactive as they are specific to an individual User and the costs associated with the scheme would be fully underwritten by that User. It is not foreseeable that any applicant would be required to underwrite the costs of a Category 1 intertrip triggered by a subsequent application should that application be withdrawn, as any works required as a result of a subsequent application would be fully underwritten by the subsequent applicant.

Category 3 intertrips might be installed as an alternative to the reinforcement of third party works to prevent an overload on a third party's network. In this instance, the triggering User would be required to underwrite the costs of the intertrip. Should a subsequent application trigger the requirement for a further scheme, the subsequent applicant would be required to underwrite the cost of the extension and modification of the scheme and consequently, the first applicant would be unaffected should the subsequent application be withdrawn.

Contestability

One respondent enquired if the works required to provide an operational intertrip in categories 1 and 3 would be contestable since by definition, they are not deemed infrastructure.

National Grid Response

Contestability is only applicable to activities associated with connection assets. By definition, one-off works occur when the transmission licensee is required to carry out works on the transmission system that although directly attributable to the connection, may not give rise to additional connection assets. National Grid accept that operational intertrips are a 'grey area' as they could be deemed as neither infrastructure nor connection assets, but are required to facilitate a connection. Consequently, National Grid believes that contestability may not be inappropriate in these instances and all requests will be considered on an individual basis subject to

[2] http://www.nationalgrid.com/uk/Electricity/Charges/modifications

ensuring that the integrity, security, reliability and safety of the transmission system is not prejudiced.

Alternative reinforcement

One respondent enquired as to whether it is the intention in Category 3, that a proposed connecting generator be given the option of paying for reinforcement of the third party system rather than accepting an intertrip and whether the relative costs would be known at the time of a connection offer for an informed decision to be made.

National Grid Response

In this instance, National Grid will only make an offer to a connecting generator subject to the completion of third party works determined following consultation between National Grid and the third party of the most efficient option available. Ultimately, the decision is to be made by the relevant asset owners operating their networks in accordance with their licence obligations.

Where third party works are identified as the most efficient option available, a User has the option to negotiate completion of these works through the commercial discussions with the third party involved. Clarification of the costs of a Category 3 intertrip will normally be visible as the separate one off charge, and any further information can be sought from National Grid by the User at any point during the offer process in order to assist the User in making an informed decision.

Subsequent connections

One respondent noted that the Connection Charging Methodology should indicate, in the event that a subsequent generator connects and makes use of the facility paid for by Generator A, how and to what extent Generator A would receive a refund of some of these charges in recognition of the benefit obtained from the facility by the subsequent generator. The respondent added that this is relevant to other types of one-off charges also and that National Grid should address the principle of the subsequent sharing of one-off costs associated with infrastructure developments.

National Grid Response

The development of Category 1 and 3 intertrips are specific to a connecting generator in that a scheme will be designed based on the requirements of the system as a consequence of that connecting generator. Any subsequent generator connecting to the system is therefore unlikely to be able to benefit from the existing facility and if a modification was required to the intertripping scheme then the subsequent generator would be charged a one-off. In summary, it would not be appropriate for the existing generator to receive a refund of a one-off charge, as a subsequent generator would not be making use of an existing facility.

In general, one-off charges are levied in full on the triggering User and they are based on a 'snapshot' of the requirements of the transmission system at the point in time when a specific User connects. The one off charge relates to costs that a specific User is causing which fall outside of the connection boundary, but which are not appropriate for sharing across the wider community. It is unlikely that the driver for the one off charge would change over time i.e. it is unlikely that it would become appropriate for the wider community to start to bear the cost. If it could be reasonably expected that the works could be used by more than one party then it would not be appropriate for the cost to be levied as a one off, and would therefore be classified as infrastructure.

It may be possible to devise a scenario under which it could be suggested that other Users are starting to benefit from previously installed one off works, however we believe that this is extremely unlikely in the short to medium term. Therefore, as the likelihood is very small, we do not believe it is appropriate to establish the complex and resource intensive processes that would be required to constantly monitor all one-off works, or to develop the necessary cost allocation methodology. Furthermore, it is possible that to ensure the constant review of one off works is non-discriminatory, then any system development should be capable of triggering a one-off charge and not just those schemes driven by a particular User's connection. This would result in new one off charges becoming active on a regular and unpredictable basis.

National Grid remains of the view that one-off charges are levied on a one-off basis with no scope for future refunds, adjustments or re-allocations.

One-off principles

One respondent had difficulty in understanding the rationale for National Grid to impose one-off costs to connecting generators, particularly in respect of infrastructure reinforcement and sought greater clarification of the principles under which one-off costs are made before embellishing the scope for imposing these costs.

National Grid Response

Chapter 3: 'Other Charges' of the Statement of Connection Charging Methodology provides a mechanism by which the costs of works to facilitate a connection, but which cannot be classified as either connection or infrastructure assets, can be recovered. One-off costs are therefore levied on Users to recover the cost of works that cannot be recovered as infrastructure assets through Transmission Network Use of System (TNUoS) charges, or as connection assets in accordance with the Statement of Connection Charging Methodology.

National Grid believes that the principles for charging one-offs are clear, and where there may be scope for further clarification then National Grid will discuss the issue with the industry. This is an example of such industry discussion with this consultation seeking to provide greater clarification and categorisation of those generator intertripping schemes that would be liable for one-off charges.

Early connection

One respondent noted that Category 1 involves the installation of intertrips to facilitate the early connection of a generator to the transmission network. The respondent was unaware of the circumstances where an intertrip scheme would be used to facilitate early connection and suggested that this particular circumstance should not form part of the consultation.

National Grid Response

There are, and have been, circumstances when the installation of an operational intertrip has facilitated an early connection to the transmission system for a connecting generator. It would not be appropriate for National Grid to provide specific examples, but a generic example would be a case where infrastructure works have not been completed to SQSS standards by the agreed connection date, and an operational intertrip has facilitated an earlier connection to the transmission system than would have been otherwise possible, subject to agreement between both National Grid and the User and derogations from Ofgem. Operational intertrips

installed to facilitate an early connection are done so as a temporary measure only, until the necessary transmission network reinforcements are completed.

Each of the four categories of operational intertrip identified in the modification proposal were discussed extensively throughout the development of CAP076, were subject to consultation and ultimately approved by the Authority. Consequentially, National Grid believe that a Category 1 intertrip is valid and on this basis, should be included in the Statement of the Connection Charging Methodology.

Variation to connection design

One respondent requested that Paragraph 5.1.1 of the modification proposal be clarified such that the proposed charge for the intertrip installation should only apply where the intertrip scheme is required solely as a result of the variation to connection design arising as a result of a User request. The respondent noted that as currently drafted, the charge would appear to apply to any intertrip scheme that accompanies a variation to connection design.

National Grid Response

National Grid can confirm that Category 1 intertrips apply to a variation to connection design arising as a result of a User request, noting that a variation is only normally allowed following a request from the User. National Grid is happy to amend Paragraph 5.1.1 to provide further clarity.

CUSC obligation

One respondent noted that it had previously raised concerns with National Grid regarding the practice of imposing the liability for third party works on Generators via the bilateral connection agreement when seeking connection to the transmission system, whilst not being aware of any corresponding requirement within the CUSC that places an obligation on the Generator to pay for the cost of such third party works.

National Grid Response

Section 6.10.3 of the CUSC removes any obligation on National Grid to compensate a User, whilst placing an obligation on new connectees to pay for third party works required as a result of that connection.

Section 6.10.3 of the CUSC states:

> *"**NGC** shall have no obligation to compensate any **User** (the "**First User**") for the cost or expense of any **Modification** required to be made by any **User** as a result of any **NGC Modification** under Paragraph 6.9.3.1. Where such **NGC Modification** is made as a result of the construction of a **New Connection Site** or a **Modification** for another **User** (the "**Other User**"), the **Other User** shall compensate the **First User** for the reasonable and proper cost and expense of any **Modifications** required to be made by the **First User** as a result of that **NGC Modification**. Such compensation shall be paid to the **First User** by the **Other User** within thirty days of production to the **Other User** of a receipted invoice (together with a detailed breakdown of such reasonable costs and expenses) for the expenditure which has been incurred by the **First User**."*

Technical definition
One respondent raised concerns regarding the lack of a publicly available technical definition of system to generator intertrip schemes and noted that, if generators are to be exposed to the cost of such schemes, it is essential that the technical definition be clarified in order to ensure that the least cost solution is adopted.

National Grid Response
A generic definition of an operational intertrip is contained in the Grid Code and the CUSC. National Grid believe that it would be inappropriate to publish a technical definition of an operational intertrip as they are User specific and vary in technical design. National Grid believe it is more appropriate for scheme specific details to be included in the relevant bilateral agreement as noted in section CC.6.3.17 of the Grid Code.

This issue has been discussed at length at the Grid Code review panel and National Grid is currently considering if any additional generic information can be provided in the Grid Code. In any event, National Grid does not believe that this impacts on the validity of the charging methodologies and this consultation is not the appropriate forum to address the issue.

Implementation date
One respondent noted that the implementation date should be delayed until 1 April 2006, to allow for the impact of this change to be taken into account when setting the next System Operator Incentive Scheme target and for any costs of assets recoverable through TNUoS charges to be apportioned correctly. The respondent also sought clarity as to whether the proposed charge would be applied retrospectively.

National Grid Response
The costs associated with the installation of operational intertrips do not have any impact on the System Operater incentive scheme and should not be confused with commercial intertrips that are used for balancing the transmission system. There is therefore no relationship between the two and no reason as to why the methodology should not be implemented on the proposed date of 1 December 2005. For the avoidance of doubt, National Grid does not intend for this modification to be applied retrospectively.

4. CHANGES TO THE PROPOSAL IN LIGHT OF REPRESENTATIONS MADE

In light of the representations made by the three respondents, National Grid propose to modify Paragraph 5.1.1 of the modification proposal to clarify that the proposed charge for the installation of a Category 1 intertrip should only apply where the intertrip scheme is required as a result of the variation to the connection design arising as a result of a User request.

5. HOW THE PROPOSED MODIFICATIONS BETTER MEETS THE RELEVANT LICENCE OBJECTIVES

National Grid's proposal to modify the Statement of the Connection Charging Methodology better meets the Relevant Objectives in Licence Conditions C5 5(b) and C5 5(c). Namely to ensure National Grid applies charges which reflect, as far as reasonably practicable, the costs incurred by transmission licensees in their transmission businesses and properly takes account of the developments in transmission licensees' transmission businesses.

6. TIMETABLE FOR IMPLEMENTATION

Subject to the Authority's power to veto this modification proposal, National Grid intends to make the proposed changes to the Statement of the Connection Charging Methodology for implementation on 1 December 2005.

Appendix 1 – Wording of Chapter 3 and Glossary

Proposed addition to Paragraph 3.2 of the Statement of the Connection Charging Methodology:

Consistent with these principles and in accordance with Connection Charging Methodology modification GB ECM-01, which was implemented on 1 December 2005, a one off charge will be levied for a **Category 1 Intertripping Scheme** or a **Category 3 Intertripping Scheme.** A one off charge will **not** be levied for a **Category 2 Intertripping Scheme** or a **Category 4 Intertripping Scheme.**

Proposed addition to the Glossary of the Statement of the Connection Charging Methodology:

Category 1 Intertripping Scheme	A System to Generator Operational Intertripping Scheme arising from a Variation to Connection Design following a request from the relevant User which is consistent with the criteria specified in the Security and Quality of Supply Standard.
Category 2 Intertripping Scheme	A System to Generator Operational Intertripping Scheme which is:- (i) required to alleviate an overload on a circuit which connects the Group containing the User's Connection Site to the GB Transmission System; and (ii) installed in accordance with the requirements of the planning criteria of the Security and Quality of Supply Standard in order that measures can be taken to permit maintenance access for each transmission circuit and for such measures to be economically justified, and the operation of which results in a reduction in Active Power on the overloaded circuits which connect the User's Connection Site to the rest of the GB Transmission System which is equal to the reduction in Active Power from the Connection Site (once any system losses or third party system effects are discounted).

Category 3 Intertripping Scheme

A System to Generator Operational Intertripping Scheme which, where agreed by NGC and the User, is installed to alleviate an overload on, and as an alternative to, the reinforcement of a third party system, such as the Distribution System of a Public Distribution System Operator.

Category 4 Intertripping Scheme

A System to Generator Operational Intertripping Scheme installed to enable the disconnection of the Connection Site from the GB Transmission System in a controlled and efficient manner in order to facilitate the timely restoration of the GB Transmission System.