

## **Conclusions Report to the Authority**

### **Modification Proposal to the Use of System Charging Methodology**

**UoSCM-M-08**

**Proposal for new winter peak  
“capacity” proxy for half-hourly  
metered demand TNUoS charges**

**19 December 2002**

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## 1. INTRODUCTION

Paper UoSCM-M-08 set out for consultation National Grid's proposed modification to the Use of System Charging Methodology to introduce a new capacity "proxy" measure for calculating TNUoS charges for half-hourly metered demand.

It was proposed that this modification would better meet the Relevant Objectives in Licence Condition C7A 5 (a) and (b) as listed below under (iii) a and b, and also in the terms of Condition C7C.

National Grid is obliged under the Transmission Licence:

- (i) to make revisions to the Charging Statements in order that the information set out in these statements shall continue to be accurate in all material respects;
- (ii) to keep the Use of System Charging Methodology at all time under review;
- (iii) to make such modifications of the Use of System Charging Methodology as may be requisite for the purpose of better achieving the relevant objectives, which are:
  - a. to facilitate effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;
  - b. to result in charges which reflect, as far as reasonably practicable, the costs incurred by National Grid in its Transmission Business; and
  - c. to take account of the developments in National Grid's Transmission Business.

In addition National Grid is obliged under Condition C7C of its Transmission Licence to ensure that National Grid shall not make charges which unduly discriminate between classes of customer.

## 2. TERMS OF THE ORIGINAL PROPOSED MODIFICATION

### Description of proposed modification to the Use of System Charging Methodology

This proposal sets out for consultation National Grid's proposed modification to the Use of System Charging Methodology to introduce a new capacity "proxy" measure for calculating TNUoS charges for half-hourly metered demand

### Explanation of the issue

National Grid has reviewed its current charging methodology with regard to charges applied to half-hourly metered demand, and has looked at a number of alternative approaches against the Relevant Objectives as set out in the Transmission Licence. This work has assessed the drivers of transmission investment in order to ensure that the charging methodologies reflect, as far as possible, the costs incurred in the transmission business. A number of Users have suggested that National Grid's investment in transmission assets is not solely driven by conditions during the very highest peak periods, and therefore that a charging basis based on demand taken during only the highest peak periods is not cost reflective. National Grid have reviewed this issue, and we continue to believe that the most significant driver of transmission investment are demand conditions over the winter peak period, and therefore the charging method should be based on demand taken over that winter peak period.

It has also been suggested that the Triad method can result in very unpredictable costs for certain classes of Users, such as Interconnector Users. Interconnector Users in particular have argued that the unpredictability of the timing of the Triad legs potentially impacts on their ability to carry out arbitrage between connected markets efficiently. In addition, it could be argued that the Triad method potentially results in an element of cross subsidisation between competing parties. Users whose capacity requirement is not continuous, such as those that load manage to avoid taking demand over the Triad legs and interconnectors, can avoid paying any demand Transmission Network Use of System (TNUoS) charges by avoiding taking demand during the few periods of the highest system peak demand. However, as transmission investment costs are not solely driven by conditions during the few periods of highest peak demand, the presence of these Users at other times during the winter peak period may cause transmission investment costs. In these cases other Users, who cannot avoid taking demand during the Triad would, to some extent, be subsidising the transmission capacity used by the more flexible Users.

In order to address these issues it is proposed to use a new basis to establish charges for half-hourly metered demand to be known as the Winter Peak Period method. The Winter Peak Period method would base the charges for each User on the average half-hourly metered demand take over the period 16:00-19:00 on weekdays (excluding Bank Holidays) between November and February inclusive. This method is designed to capture all peak periods, and would provide a better proxy for the "capacity" requirement of each demand User over the winter period in the absence of a clearly defined demand capacity, and would better reflect the costs incurred in the transmission business in providing this capacity. In addition it would reduce the potential for any cross subsidisation, as Users would be charged based on their demand take over the periods that most significantly drive transmission investment costs. In removing the potential for cross subsidisation and providing

more predictability of charges for Users, the proposal should better facilitate competition in electricity supply.

Clearly the proposed method would reduce the incentive for large industrial Users to reduce load over the highest peak periods. Historically such Users have load managed to avoid taking demand over the Triad legs, the result of which has been to reduce the system peak by up to 1700 MW. More recently, however, the amount of load management notified to National Grid<sup>1</sup> has been lower. Load management over the highest peak periods could still be of benefit to the system, and such peak load management could be handled through Balancing Services Agreements as appropriate. The proposed method would, however, provide incentives for all half-hourly metered demand to reduce demand take over the Winter Peak Period, which at present represents around one third of peak demand.

#### **Justification for proposed modification**

The proposed modification would better meet the Relevant Objective in Licence Condition C7A 5a to facilitate competition in generation and supply in the following ways:

- By providing a methodology which results in more predictable charges for demand users.
- By better reflecting the capacity requirement of each user over the period that drives the majority of transmission costs, thus reducing the potential for cross subsidisation between half-hourly metered demand users.
- By providing suppliers with the opportunity to offer tariffs to all half-hourly metered customers which encourage load management over the winter peak period

The proposed modification would better meet the Relevant Objective in Licence Condition C7A 5b to reflect, as far as reasonably practicable, the costs incurred in the transmission business in the following way:

- By better reflecting each half-hourly metered demand user's contribution to demand over the periods which drive transmission investment costs.

The modification would also ensure that National Grid's charges do not discriminate between similar classes of customer as required under Condition C7C of the Transmission Licence by reducing the potential for cross subsidisation between half-hourly metered demand users.

#### **Suggested alternatives**

None have been identified.

#### **Implementation date**

1 April 2003.

<sup>1</sup> Paragraph OC1.5.5.2 of the Grid Code obliges Suppliers to notify National Grid of any Customer Demand Management that may result in a demand changes of 12MW or more averaged over any Settlement Period.

<p><b>Proposed changes to the Statement of the Use of System Charging Methodology</b></p> <p>It is proposed that the Statement of the Use of System Charging Methodology be modified in line with the agreed methodology. The majority of changes to the methodology would be in Chapter 4, which describes Demand TNUoS charges.</p> <p><b>Proposed changes to the Statement of Use of System Charges</b></p> <p>The Statement of Use of System Charges will be updated with the new tariffs which are required to be delivered with 2 months' notice to Users. National Grid has given Ofgem 150 days notice of its intention to amend Use of System charges as required by the Transmission Licence.</p> <p><b>Impacts on existing Use of System charges</b></p> <p>The precise impact of the new proposal on system demand would depend on how the demand taken by half-hourly metered demand users over the winter period changes as a result of the different charging basis. However, the proposed method would result, all other things being equal, in each User being charged on the basis of a lower MW figure than under the Triad method, as the figure would be averaged over a much greater number of periods. For this reason the zonal demand tariffs would increase to ensure that the same revenue is recovered. As the base over which charges would be recovered would be approximately 8-10% lower (based on historical data) than under the Triad method, the zonal tariffs would, on average be approximately 8-10% higher.</p> <p><b>Impacts on other Industry Documents</b></p> <p>None.</p>
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### 3. RESPONSES TO THE MODIFICATION PROPOSAL

Comments and views were invited on all the issues raised in the Modification Proposal up to 9 December 2002. National Grid received 25 responses, which are included in Appendices 1 and 2. As the Transmission Licence stipulates that National Grid is obliged to consult with CUSC parties, these responses have been split between those from CUSC parties (Appendix 1) and those from non-CUSC parties (Appendix 2) for clarity.

Of these responses four were in favour of the proposed modification, although two of these responses favoured a later implementation of the change to allow the changes to be factored in to any contractual negotiations, further development of Balancing Services contracts and any changes in settlement systems to be developed. In general, those respondents who supported the proposal believed that it would better reflect the impact of half-hourly demand on costs, would provide predictable and transparent charges, and would remove any potential cross-subsidy between half-hourly metered users.

Twenty-one responses were opposed to the proposed modification, and raised a number of issues for National Grid to consider in relation to this modification proposal.

In relation to the facilitation of competition in generation and supply, a number of parties argued that the proposed modification would in fact hinder competition by removing some of the options that suppliers have in developing peak tariffs, on which suppliers currently compete. The view was also expressed by one respondent that the extent to which National Grid could facilitate competition was limited to setting fixed tariffs in advance for the Financial Year ahead, and that transmission costs are simply an overhead of participation in the wholesale market.

In relation to cost reflectivity, a number of issues were raised by respondents. A number of respondents did not feel that the proposal better reflected transmission costs than the current Triad method. In particular respondents expressed the view that they did not consider a method which reflected a level of demand of around 90% of the peak system demand reflected a level of demand which drives transmission costs.

Several respondents commented that it was not appropriate that one effect of the proposed modification was to reduce charges on non half-hourly metered demand as this demand is the main driver of system peak, and therefore the main driver of transmission investment costs. One view was that any changes must consider half-hourly and non half-hourly demand together as changes to the charging methodology for one type of demand impacts on the charges made to the other, and that any changes encompassing both types should be brought forward for April 2004. A number of other respondents commented that the proposal discriminates against half-hourly, and in particular, industrial consumers.

A number of respondents raised concerns over the impact of the proposed modification on peak system demand, and the resulting effect on transmission investment costs and Balancing Services costs. A number of respondents also commented that the proposal may result in an increase in exports across the UK-France Interconnector, further increasing peak demand.

A number of respondents suggested a tighter window as an alternative, measuring demand between Monday and Thursday, and over only 3 or 4 settlement periods from 16:30 onwards, rather than the 6 periods from 16:00 originally proposed. Part way through the consultation period National Grid issued an additional information note that presented some analysis of a Monday to Thursday 16:30 to 18:30 method.

Some respondents commented that the proposals would reduce the ability for embedded generators to realise their embedded benefits through TNUoS, as they would need to run over a longer period.

#### **4. CHANGES TO THE PROPOSAL IN LIGHT OF REPRESENTATIONS MADE**

National Grid would like to respond to a number of the issues raised by parties in their responses to this consultation.

National Grid notes the views expressed by a number of respondents with regard to the facilitation of competition. These responses indicate that competition issues would appear to be one area where further consideration is required in developing future charging arrangements. National Grid had thought that the movement from a narrow ex-post method of determining liability for demand charges to a wider ex-ante method would increase competition by providing more predictable charges and removing the potential for cross subsidy between parties. There were differing views

expressed on this issue, with some respondents supporting the view that competition would be increased. However, even of those supporting the proposal, two respondents suggested delaying its implementation until 2004 to allow more time for consideration of its impact on supply and balancing services contracts. Whilst some support for the proposal was put forward by one interconnector user in terms of providing a predictable cost when bidding for interconnector capacity, a number of suppliers and other interconnector users thought that the modification would actually harm competition. This comment was made on the basis that suppliers currently offer tariffs and hedges designed around the risk and uncertainty inherent in the Triad method, and that the proposed change would reduce the contracting options that could be offered.

In light of these responses from those parties affected by the competition issues, National Grid does not feel that it has been clearly established that the proposed change the Charging Methodologies would better meet the Relevant Objective with regard to facilitation of competition. On the basis of the responses discussed above, it is also not clear that any of the alternative, narrower windows would better meet the Relevant Objective either.

With regard to cost reflectivity, National Grid still believes that the vast majority of transmission investment costs are driven by system peak conditions. As the Triad method is focussed on the system peak and, therefore, reflects the most significant driver of transmission investment, it is a cost reflective method of determining liability for demand TNUoS charges. One issue that the proposed modification attempted to address was that of ensuring an equitable distribution of charges between half-hourly metered demand users. Clearly, with the Triad method, it is possible for some users to reduce or avoid charges by reducing or avoiding taking demand during the three Triad periods. Although the overall effect of this load reduction has been to reduce overall transmission investment costs by reducing the peak demand that National Grid has been required to meet, the presence of this demand during other peak periods has the potential to drive some transmission costs. The proposed use of a wider window for determining charges would have reflected the contribution of a wider base of users to peak demand, thus capturing all demand with potential to cause transmission costs. The choice of charging method is, therefore, a balance between a method that reflects the total peak demand that is the most significant driver of transmission investment, and a method that apportions charges according to each user's contribution to transmission investment costs.

On balance, National Grid does not believe that it has been clearly established that the proposed change to the charging methodologies would better meet the Relevant Objective with regard to cost reflectivity. Whilst ensuring capture of all demand with the potential to cause costs, the method proposed in the modification would be less reflective of the peak, and therefore less reflective of the main driver of transmission costs. This could be accepted if the change had a significantly improved effect on competition, but as noted above, a number of responses suggest that this would not be the case.

With regard to increased system demand and transmission investment, National Grid does not believe that the proposal would have automatically led to increased peaks and transmission costs. National Grid proposed that it would manage peak demand, including the impact of interconnector exports, through the use of Balancing Services such as Standing Reserve and Constraint Management. Although this may have led to a change in the overall costs of procuring Balancing Services, National Grid believe that this may be the appropriate mechanism for the management of peak

demand, and to provide reward for those offering that service, rather than through Triad avoidance of TNUoS charges.

A number of respondents have suggested a much greater volume of load management than has been observed by National Grid. One respondent suggested that up to 1500MW of load management may be occurring, while National Grid has suggested that only around 800MW of load management was occurring at any one time in winter 2001/02 based on experience of likely demand shapes. Indeed during the first few weeks of this winter, National Grid estimates that only around 500MW of load management has taken place during expected Triad periods, of which only around 150MW has been notified to National Grid. National Grid would encourage users who do demand manage to ensure that their suppliers are fulfilling their Grid Code obligation to notify National Grid of any Customer Demand Management of 12MW or more. In addition, National Grid would like to continue to discuss the extent of demand management with users in order to ensure that the effect of such demand management is neither over or under estimated.

National Grid recognises the views expressed with regard to the impact on charges levied on non half-hourly metered demand, and the impact on the reflection of non half-hourly metered demand's contribution to transmission investment. National Grid does not, however, believe that this is an issue of discrimination as these two types of demand are not in direct competition with one another. Any method which reflects a level of demand which is wider than merely a small number of peak periods would result in a lower proportion of non half-hourly metered demand being charged, as at all times other than system peak, half-hourly metered demand represents an increased proportion of total demand. If it were established that a wider window were more appropriate then it would also be appropriate to levy a greater proportion of charges on half-hourly metered demand. National Grid accepts the view, however, that given the impact of the proposal on the charges levied on both non half-hourly and half-hourly demand, any change of part of the demand TNUoS charging basis should encompass a review of the charging bases for demand as a whole.

National Grid note the views expressed with regard to embedded generation being required to run over a wider period to realise their full TNUoS "embedded benefits". National Grid believe that, if it were deemed that the proposed method were appropriate, that it would be appropriate to apply this to embedded generators also, on the basis that when netting off, embedded generators are being treated as negative demand. Therefore, whatever method is applied to half-hourly metered demand is appropriate to be applied to embedded generators.

In conclusion, in light of the responses received to the consultation, National Grid has decided not to pursue the proposed modification to the Charging Methodologies in relation to the charging of half-hourly metered demand at this stage, as it is not clear that the modification would better meet the Relevant Objectives as set out in the Transmission Licence. National Grid recognises that there is a balance between the issue of facilitating competition and cost reflectivity, and will continue to review the charging basis for half-hourly and non half-hourly metered demand, and will bring forward further proposals if a method is found which does better meet the Relevant Objectives.

## APPENDIX 1 – RESPONSES TO MODIFICATION PROPOSAL - BY CUSC PARTIES

### Response from BOC

"I refer to the consultation with respect to the above modification proposal. I now attach BOC's response to this proposal which BOC does not support.

I hope you find the views and comments contained in the response helpful. I should be grateful if you keep me up to date with the status and progress of this modification proposal.

- The new arrangements will greatly reduce or even eliminate large customers load management response during system peaks. The only remaining demand response of any consequence in the NETA world.
- This is the case with BOC last year we reduced load to triad manage 13 times and our typical load reduction is 53MW
- Our opinion is that if the transmission charges were split across Monday - Friday 16:00 to 19:00 then we would not load manage any of this plant as the cost of shutdown and restart for three hours would be greater than the benefit gained. So if there is to be no load reduction and an increase of charges of 8% this would increase would cost BOC about £500k per year.
- This will means peaks will be higher and it is likely to increase NGC's cost of balancing the system, these cost will pass to customers. Also an increased cost runs counter to NGC's licence obligation to run the system in an efficient manner.
- The new arrangements will make it more likely that the England-France interconnector will change for import mode to export mode at time of system peaks allowing a potential 4GW increase in system peak with consequential cost increases to NGC's system. Also potentially narrowing generation margins over demand.
- The new system would increase charges to all half hourly metered customers while reducing them to non half hourly customers. As NGC costs are primarily driven by the need to meet system peaks this reallocation of charges means that NGC charges are less cost reflective and thus meets NGC's licence obligations less well than the present system.
- NGC in its Summary and Conclusions paper on for the Interconnector (28/8/02), stated *"National Grid is satisfied, therefore, that Triad method of demand TNUoS charging is one cost reflective method of reflecting peak demand conditions and its application to all HH metered demand users is non-discriminatory"*. BOC believes that moving from peak demand to week days 16:00 to 19:00 would be less cost reflective and thus would be a change in the wrong direction and against NGC's licence objective to have cost reflective charges."

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### Response from British Energy

"Further to the above consultation document issued in respect of the above proposed modification, British Energy advise that we do NOT support the proposal as presented.

We recognise NGC's Transmission Licence obligations, which includes keeping the Charging Methodologies "at all time under review" but it is also important to ensure

that any significant change to an existing methodology avoids undue discrimination between parties and prevents any distortion to the market.

Although the proposed Triad replacement methodology only addresses the HH metered demand section of the market, it does have a knock-on impact to the NHH market tariffs. We note that in the July 2002 report of the first Charging Review Workshop that one of the 'Fundamental Issues' to be addressed in the conclusions section was a "Review of basis of kWh charging for non half-hourly metered demand;" a condition in Ofgem's approval of the Charging Methodologies, in June 2001. We also note that in announcing the current batch of charging methodology changes at the 31<sup>st</sup> October TCMF, NGC advised their intent to "analyse potential other charging methods [for non half hourly charging] over the coming months" noting that a "peak based charging method, in line with half hourly charging, might be more appropriate" but NGC acknowledged "that it would be difficult to implement a change before 1<sup>st</sup> April 2004" [Minute 337 of the 31<sup>st</sup> October TCMF].

The change of emphasis from performing a NHH charging basis review (which NGC have advised accounts for approximately 2/3rds of the actual system peak demand) to HH (Triad-based) has not been explained, but in any event, we remain firmly of the opinion that a review should encompass both NHH and HH demand and that any proposed options for changes to the future charging basis should consider all Demand by virtue of their interactive nature taking due account of the relative impacts on the transmission infrastructure development.

With the prospect of an early review of the NHH charging methodology, we consider that to approve and implement this HH methodology change is both premature and inappropriate as a solution and cannot be considered as satisfying the Relevant Objective in either NGC's Licence Condition C7A 5a (facilitating competition) or C7C (discrimination) whilst the sectors are considered in isolation.

We do recognise and support a number of the underlying principles of the proposal, such as:-

- Providing more predictable charges
- Removal of the potential for cross-subsidies
- Providing an equitable charging methodology which ensures appropriate tariff structures to reflect their costs for using the NGC system

There are, however, a number of specific issues which we do not, as yet, believe have been adequately explored and assessed in this modification:-

- The suggestion that a much smaller (NGC-based) discretionary, and as yet undefined, market might be created for some of those demand Users who would be displaced if this modification was implemented will not provide sufficient incentive for those flexible customers to manage their demand at times of peak system demand stress
- The extent of the system impact of demand Users who are currently able to load manage, whether as a function of Supplier tariff incentives or via Triad arrangements
- The definition of the materiality of those parties, if any, who currently avoid all demand UoS charges and the extent of the issue
- The longer-term effects that the inevitable reduction of incentives for demand Users from load management has on the requirement for earlier transmission system infrastructure improvements and development

In conclusion therefore we would reiterate our opposition to the proposed change from 1<sup>st</sup> April 2003 but would welcome an early review which encompasses both HH and NHH sectors to provide potential changes for industry consultation and subsequent implementation for the 2004/05 charging year."

### **Response from British Gas Trading**

"We support this proposal. We believe that this proposal will better target the peak demand period effect on the network.

We agree with NGC that as this proposal charges Users on their demand take over the periods that most significantly drive transmission investment costs. This will remove the current cross subsidy that exists and provide more predictable and transparent charging."

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### **Response from EdF Trading Ltd and EdF (Generation)**

"Please find below the response from EdF Trading Ltd and EdF (Generation) on your proposed modification to the Use of System Charging Methodology with regards replacing the use of the Triad as the basis for TNUoS demand charging. We note that this proposal is to use a Winter Peak Period defined as 16.00-19.00hrs, Monday to Friday and from November through to February exclusive of Bank Holidays. This would replace the Triad methodology for the year 2003/4 onwards. We have been and remain critical of the Triad methodology for calculating the demand Use of System charges. As you rightly point out in the consultation document, its unpredictability and the fact that it is not known until well after the event means that it can have an adverse effect on the cross border trading on the Anglo-French Interconnector. The proposal as presented has the advantage that it's impact will be known ex-ante, albeit that it will impact more frequently, and this can therefore be taken into account when bidding for capacity on the Interconnector.

We therefore are willing to accept this proposal and that it be adopted for the next financial year. It should be added though that we still believe the interconnectors should be regarded as a 'special case' and that they warrant separate treatment. The current methodology, adopted since April 2001, of charging both generation and demand charges is we believe unduly restrictive and doesn't reflect the costs to the Transmission System. This is because we believe that interconnectors act as pseudo-generators, no matter which way the power is transferred, and that there are mechanisms to pull back or increase transfers at time of system need. There should not be the need to reflect reinforcement costs when the interconnectors are exporting power from E&W, other than when it is viewed as having an equal status as E&W demand in terms of duration and rights. This is consistent with the way NGC currently regards them for planning and investment purposes and indeed how it views them when determining the allocation of connection assets and the setting of the TNUoS tariffs. This is also the case in the rest of Europe where, contrary to what has been previously stated by NGC, interconnector capacity is no less firm. Were this now to be accepted, then we believe it would be appropriate for all Users (no matter who or in which direction) to share in the payment of the 'generation' charge i.e. no free ride for Users in one direction. We would ask that you and the Interconnectors Business give this due consideration."

**Response from Gaz de France Marketing Limited**

“Thank you for the opportunity to respond to your consultation document dated 11<sup>th</sup> November 2002. Please find below Gaz de France Energy Supply Solution’s response to the consultation.

NGC stated that the purpose of the modification to the methodology was to better meet the relevant objectives in Licence Condition C7A 5 (a) and (b), and the terms of Condition C7C. It is to these points that we shall address our response.

National Grid is obliged under the Transmission Licence to make such modifications of the Use of System Charging Methodology as may be requisite for the purpose of better achieving the relevant objectives, which are:

- a) to facilitate effective competition in the generation and supply of electricity  
and (so far as is consistent therewith) facilitates competition in the sale,  
distribution and purchase of electricity;
- b) to result in charges which reflect, as far as reasonably practicable, the  
costs incurred by National Grid in its Transmission Business.

In addition National Grid is obliged under Condition C7C of its Transmission Licence to ensure that National Grid shall not make charges that unduly discriminate between classes of customer.

We cannot support the proposed modifications, as we do not believe the proposal achieves improvement to the applicable objectives, for the reasons specifically set out below.

**Licence Condition C7A 5 (a)**

We do not believe the proposed modification increases competition within the market, rather it stifles it. Suppliers may currently offer not only load management tariffs but also hedges for customers wishing to manage their costs. So called “Load Management tariffs” can come in many different forms, based on varying hours of Load Management around peak (Triad) times with suppliers offering fewer hours at a higher price or vice versa. This gives customers the ability to choose the most suitable tariff from the diverse range on offer to them. In addition, it is possible for customers to seek a hedge against Triad via suppliers. This can currently be done in two dimensions, (volume and time – as the time of Triad is unknown). The Winter Peak Period effectively fixes the time element meaning less attractive volume hedges are the customers’ only option.

NGC state the Winter Peak Period method provides better competition because it provides predictable charges, better reflects the capacity requirements of each user and gives suppliers the ability to offer Load Management tariffs to all half-hourly customers that allow them to load manage. The assertion that charges are more predictable actually inhibits competition as it removes some risk element from TNUoS and so the need for “hedging” products. That a given TNUoS methodology reflects a

customer's capacity better or worse than any other method is irrelevant to competition between suppliers. Suppliers already offer a wide variety of tariffs (load management or otherwise) to all half-hourly customers across peak times, so there is no need to change. The Winter Peak Period method will mean that suppliers would only offer a single tariff modification for that entire period, thus reducing customers' options.

### Licence Condition C7A 5 (b)

With such a wide period over which charging will occur, (250hours), it is inevitable that System peaks will increase as the amount of load management will decrease, as a direct result of the introduction of Winter Peak Period charging. The modification does not provide a sharp signal to incentivise Load Management at peak and 250 hours of load management is not sustainable by most of the demand side who currently load manage for Triads.

This increase in system peak would potentially increase transmission costs in at least three areas:

1. Increased energy costs: More expensive generation would be required to meet increased system peaks, thus would increase costs both in forward markets and the balancing mechanism.
2. Increased Balancing Services Costs: NGC will now have to pay for any load management it may require during system peaks. This will lead to an increase in BSUoS, and could be viewed as shifting costs from TNUoS to BSUoS.
3. Increased Transmission System Costs: Higher system peaks will potentially require system reinforcement work, increasing the TNUoS bill.

In addition, we have been informed via NGC's Operational Forum that there is an issue that System Margin is becoming tighter already this winter. Since November, the average London temperature so far is 10°C, not low for the time of year, yet two NISM's have been called.

NGC offered the following information at the operational Forum:

	Last Winter	This Winter
<b>Installed Generation Capacity</b>	68 GW	65 GW
<b>Generation Declared Available at peak</b>	57.5 GW	61 GW <sup>1</sup>
<b>Peak Demand</b>	51.5 GW	53.4 GW <sup>2</sup>
<b>Peak Operating Margin</b>	6 GW	7 GW

<sup>1</sup> Based on OC2 Submissions, does not include plant outages like the figure for last winter.

<sup>2</sup> Based on restricted ACS demand.

Based on this, and to quote the presentation, "...if 10GW of installed plant is unavailable at peak this year, [as it was last year] there could be difficulty in meeting peak demand". Thus it seems counter-productive to propose a modification that potentially increases system peak by between 800MW (NGC estimate of load management) and 1500MW (Demand Side estimates).

In addition, as well as introducing an extra element of cost, the Balancing Services route will not achieve the same result as Triad Load Management in suppression of peak demand. However this is probably not a concern as NGC indicated they would only consider a new Balancing Service if they saw value in it, indicating that Standing Reserve and existing Balancing Services could cope.

Thus the load management market is devalued at a stroke from £5 to £15 per kW at peak to effectively nothing.

If Standing Reserve were utilised by the current "Triad Load Managers" the current value of Standing Reserve is significantly less than the current value of Triad Load Management. The current non-BM Standing Reserve market is 422MW out of approximately 2000MW. Does the addition of another 400MW to 800MW to this market mean that not all of the current Load Managers will be able to secure a contract?

In terms of qualitative analysis of likely market behaviour should this modification be accepted, a number of assumptions presented by NGC also appear to be flawed.

- Whilst it is acknowledged by NGC that some load management at peak times may be lost, NGC also seem to indicate that new load management will occur, (pg 27 of the Initial Conclusions Report). Having discussed this with customers, it is very difficult to understand where this new load management will hail from.
- The assumption by NGC that overall peak demand will remain at current levels, despite the fact that a number of representatives from large manufacturing stated that they would be unable to load manage over the Winter Peak Period, appears flawed.
- NGC have indicated that they believe there is 800MW of load management at Triad Peaks. Numerous Demand Side players believe it to be in excess of this and a quick analysis of Winter Demands so far would seem to reinforce the Demand Side findings. For example on 18<sup>th</sup> November the Day Ahead Demand Forecast was 50,717MW. Some suppliers called a Triad Warning and the load out-turned at 49,758MW, over 950MW lower. The 26<sup>th</sup> November was also called similarly and resulted in a load just over 1000MW lower than predicted. Even on days when only some suppliers appear to call, 700MW would seem to result.
- Some of the verbal assumptions that were aired during the meeting at Brandon Hall on 21<sup>st</sup> November by NGC indicated a lack of understanding of how the majority of half-hourly loads operated.

We do not feel that the proposed modification fairly reflects the costs on the Transmission System, nor is it in any way likely to reduce them. If anything it will increase costs by reducing voluntary demand control over peaks, requiring costly intervention via instructed generation or load management.

### **Condition C7C**

The proposed Winter Peak period method will lead to a shift of costs from non-half-hourly to half-hourly customers. NGC's own figures show that if the modification had been introduced in 2002, £9 million would have been moved out of non-half-hourly revenue recovery and into half-hourly. This is inappropriate when non-half-hourly load comprises 2/3 of peak demand and is much more weather sensitive than the half-hourly loads. As such this modification unfairly discriminates against the half-hourly class of customer by making them liable to a disproportionate amount of the overall TNUoS bill.

The Winter Peak Period also discriminates against small Suppliers who do not have the sizeable non-half-hourly portfolios of the larger vertically integrated Suppliers. This is because any Supplier with a large non-half-hourly portfolio will

be charged less TNUoS for non-half-hourly demand. On a per customer basis this small amount would probably not lead to a reduction in domestic tariffs. This will mean the accrued benefits (£9M), is not guaranteed to pass to customers, unfairly advantaging larger players over smaller suppliers!

In addition, any increases in peak price (caused by increased peak demands) will favour vertically integrated players and increase energy costs across the market. This could in the long-term harm competition by preventing smaller suppliers from entering the market and competing effectively.

Finally, the system changes required by all suppliers to account for the billing to customers, (and administration to NGC) of the new Winter Peak Period TNUoS will incur additional and as yet unknown cost. This disadvantages smaller players who will probably incur similar costs, but have a much smaller income to cover this additional expense.

## **Conclusion**

In summary we would oppose this Modification to the TNUoS charging principles based on the facts that:

- It potentially damages competition by reducing the potential options available to customers.
- It harms competition by discriminating against smaller Suppliers by preventing them competing effectively and increasing the risks upon them whilst assisting large vertically integrated players.
- It does not fairly reflect the costs of the Transmission System as the Transmission System is sized to meet ACS demands and the Winter Peak Period methodology does not reflect this.
- It will increase both TNUoS and BSUoS, which is at odds with the principles of economic efficiency embodied in NGC's licence.
- It discriminates against half-hourly loads especially those flexible loads that currently contribute to system security and reduce Transmission costs. In addition it requires them to bear a disproportionately higher share of TNUoS than the non-half-hourly loads.
- It puts at risk the stability of the Transmission system because it adds 1000MW additional load at peak times by removing the key incentive to load reduce at this time.

We would also urge NGC (and the regulator) to consider the political ramifications of loading additional costs onto already beleaguered manufacturing industries, especially as there does not seem to be a benefit for doing this.

Finally, NGC's own Initial conclusions report published on 5<sup>th</sup> November, states on page 26 that "...no one method is clearly better than any other method". If this is the case what is the rationale behind the move to a Winter Peak Period when this change will:

- Increase system peaks;
- Increase costs (TNUoS and BSUoS);
- Disrupt competition;
- Increase the profitability of large vertically integrated players at the expense of smaller players;
- Disproportionately charge the very customers who contribute least to peaks;

- And increase the risks of system disruption through the loss of the current beneficial voluntary load management at times of winter system peaks?"

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### Response from Innogy

The following comments are made on behalf of Innogy, Innogy Cogen Ltd., Innogy Cogen Trading Ltd.

"Generally the above mentioned parties do not believe that the Triad method of charging for demand use of the transmission system is a wholly appropriate measure for targeting costs. The sharpness of the Triad system of demand charging results in a demand response that interferes with the energy market. Whilst peak demands on the transmission system will dictate the need for further investment, we would favour a more muted economic signal consistent with the long lived nature of the investment that is provided by the Triad.

However, the proposal in UoSCM-M-08 would appear to go to the other extreme by dampening the pricing signal to such an extent that virtually no response could be expected from price elastic demand. The price signal under this proposal would be less than 1% of that seen under the Triad arrangement. We would not agree that the proposal would facilitate competition in the manner envisaged in the consultation document.

By making the charges predictable in a temporal context there would be no incentive for suppliers to create innovative charging arrangements that would relieve demand on the system at times of system stress. Although an ex post charging arrangement has merit in making the charge predictable for customers, it has the disadvantage of not allowing the charge to accurately target the underlying costs.

The contention that the approach will better target costs also needs justifying. The inference is that it is demand at 90% of the peak level that creates the need for the transmission system, yet no evidence is offered as to why this is the case.

Our suggestion would be for the demand basis for charging to be approached from the fundamental principles of ICRP. Conceptually charges based on ICRP recover two sets of cost. Costs that would arise from incremental investment in the transmission system to meet new demand, and the cost of maintaining the existing system and contributing to the return on past investment. There may be some merit in separating these two components in deriving a charging methodology. The first component could be focussed on peak demands to provide a signal for future investment. These would most efficiently be determined ex post as at present or perhaps over a slightly wider charging base. The second part would be charged over a longer period, which could be predetermined. This might be the 100 hours or so suggested as 16.30 to 18.30, Mondays to Thursdays, November to mid February.

Such a combination would seem to better reflect the costs on those who cause them, promote competition between price elastic demand which would reduce the need for transmission investment, and reduce the discrimination that may exist under the current arrangements between half hourly customers."

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## Response from LE

"We welcome the review of use of system charging for demand users and the stated objectives that, in order to promote competition, charges should be predictable and cost reflective.

The current system results in some participants being easily able to avoid use of system charges whilst other users are exposed to unpredictable use of system charges. Although there is evidence that this charging structure has resulted in load management at system peaks it is not clear whether it has provided the most efficient approach to the management of peak demand or whether the avoidance of UoS charges represents a fair value for the load management provided.

The proposed charging structure addresses both the predictability and cost reflectivity of charging. The predefined winter peak period gives certainty of charges and a more accurate measure of the peak capacity requirements for all Half Hourly demand. We therefore agree that this proposed charging methodology would better achieve the Transmission Licence Objective to facilitate competition in generation and supply. However, we are not convinced that it is necessary to measure peak capacity over such a large number of settlement periods, as this removes much of the incentive for demand side load management. Although we recognise the failings of the load management incentives provided by the Triad charging methodology, we believe that effective load management has an important role to play in the efficient operation of the transmission system. We would therefore suggest a more focussed Winter Peak Period over Monday to Thursday and from 16:30 to 18:00 (Settlement Periods 34 to 36 inclusive). This would retain the predictability and would still give a good measure of peak capacity requirements but would also provide a greater opportunity for targeted load management during the most likely periods of peak demand.

The proposed charging methodology will result in a greater requirement for NGC to actively contract for load management services. NGC propose to achieve this through existing contracting tools. We are concerned, however, that this will result in some parties being excluded from participation in any load management contracts as the closed tender application deadline for April 2003 to March 2004 has already passed. This would be to the detriment of competition in generation and supply in the first year and therefore a delay of one year may be preferable."

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## Response from Npower

"Thank you for your invitation to comment on the above Modification Proposal. The following comments are made on behalf of Npower Limited, Npower Direct Limited, Npower Northern Limited, Npower Northern Supply Limited, Npower Yorkshire Limited, Npower Yorkshire Supply Limited. NGC are proposing to replace the current Triad calculations with a figure drawn from the average MW demand over a much wider window, covering almost 500 half-hour periods. After consideration, Npower feel that proposed Winter Peak Period does not better represent peak half-hourly demand.

The reasons quoted by NGC cover both the better facilitation of competition and better reflection of costs. NGC's costs of maintaining the transmission system are not, however, a competition issue. Rather they are an overhead of participating within the wholesale market. The TNUoS tariffs, both HH and NHH, are fixed for each GSP

Group and are published in advance of the relevant charging year. Essentially, this is all NGC can do to facilitate competition. NGC states that the WPP better facilitates competition through better reflecting the capacity requirement and its cost to each customer. We do not believe that this is true. The Winter Peak Period, covering almost 500 half-hours, does not truly represent the peak capacity requirement, only the average requirement over the winter peak. NGC's own analysis shows that this is almost 10% less than the peak capacity, which it is trying to replicate.

A change to a wider charging base will also impact on the ability of customers to load manage and thus on the ability of NGC to manage the system over peak periods. By increasing the load management burden on customers who are willing to shift load between periods, load management will become unfeasible in many instances. This will increase the peak demand on the transmission system and thus the need for transmission investment.

If NGC do feel, on balance, that the proposed Winter Peak Period better represents peak capacity than the Triad calculation, we would advocate the use of a tighter peak window. As stated in the title of the Modification, this is seeking to find a better proxy for peak system usage than the Triad. The use of the word 'proxy' implies that the measure of system peak is not exact, and as such might not necessarily include every single actual peak. Indeed, by seeking to include every single peak within the definition of the Winter Peak Period, it is possible that a disproportionately large number of non-peak periods would also be captured, thus diluting the peak measure. This is supported by the analysis provided by NGC. The additional information paper shows that whilst the use of a tighter peak period, for example by removing Fridays and the first and last half-hours of the proposed charging period, will remove some individual peaks from the calculation, it also removes many more non-peaks, increasing the average value. It seems paradoxical that NGC's desire to include all peak half-hourly volumes should lead to the peak proxy being reduced. Given that the majority of the additional periods included are not representative of peak volumes, it stands to reason that any peaks occurring at these times are unusual. Consequently the inclusion of these values, both low and high, would distort the investment signals that these charges provide. The balance that needs to be struck is between an ex post measure that will accurately target the peak, and an ex ante measure, which, whilst more predictive in time, will inevitably miss some of the peaks unless all hours in the year are included.

It is worth highlighting the impact of changing to a wider window for calculating the demand proxy on customers' ability to load manage. Currently NGC estimate there is on average about 800MW of load management over the Triad periods. For NGC to continue to benefit from this reduction in load when it is most needed, these services will need to be procured elsewhere, as NGC is proposing to do through Balancing Services contracts. However, it is worth noting that load managers will expect these contracts to provide adequate compensation for any loss of Triad relief. We do not believe this to be the case. NGC also state that the Winter Peak Period would better facilitate competition by giving suppliers the opportunity to offer Load Management products to all HH metered customers. This is no different to the current situation, as any HH customer could load manage to avoid Triad charges, but it is either not practical or efficient to do so. Consequently, we find it hard to believe that any change in the charging base would enhance the value of load management products, it is more likely to devalue it.

In summary, we believe that the current Triad charging base is more appropriate than that proposed in the consultation. A change to the proposed Winter Peak Period would water down the calculation of the peak demand, and distort the locational

signals inherent within the ICRP methodology by affecting each GSP Group equally, ceteris paribus. We feel that this change would therefore not better fulfil NGC Licence Obligations concerning facilitation of competition and cost reflection."

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### **Response from Powergen**

"I am responding on behalf of Powergen to the above consultation. Powergen is broadly in support the proposal, but is concerned that insufficient arrangements have been put in place to allow large customers to seek alternative ways to offer and benefit from load management.

We agree that the proposed methodology could be seen as being more representative of the peak usage of the system for all customers than the present triad based system and would result in more predictable charges for demand users. It would also allow a greater proportion of the market to benefit from load management through contract terms which encourage electricity usage outside of winter peak periods. Of course, demand management contracts between suppliers and customers are already possible with the triad system. However, this normally relies on a "triad warning" service from the relevant supplier which is not practical for large numbers of customers. By having the cost message included up front in the contract, customers can make their own decisions about when, and to what extent, they wish to load manage.

In the short term, the removal of the ability for very large customers to avoid the triad may lead to an increase in the peak demand experienced on the system. Additionally, the type of load management which would arise under contracts with smaller parties would not be very transparent and would not be as valuable to NGC as that which it could call upon itself as required. We therefore believe that large industrial customers could have an important role to play through load management contracts with NGC. We would expect these contracts to follow the principle established by BSC modification P71 so that the imbalance caused to suppliers through the calling of the contract would transfer to NGC's account.

We also have concerns about the implementation timescales for the change. Suppliers will have agreed many of their April start contracts with customers by the time the decision on UoSCM-M-08 is made. It will therefore be too late to take account of the prices which will emerge under the proposal. Additionally, some parties may need time to change their settlement processes to deal with the increased amount of data that this proposal will require above that needed to settle the present Triad based methodology. To avoid an implementation part way through the year, we would recommend that the proposal be implemented for April 2004."

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### **Response from SSE**

"SSE oppose this modification proposal.

We believe that averaging over 450 settlement periods greatly softens the signal to minimise demand. At present there is a strong incentive to manage demand, in particular at the peak times when plant could become overloaded. This proposal would weaken that signal to the extent that there would be little incentive for users to load manage at peak time, since they would only be exposed to the cost of 1/450 of each additional MW at the peak time, rather than 1/3. This would lead to higher peak

demand, increasing balancing costs and potentially overloading plant at exit points, placing additional costs on Distribution Network operators. Neither of these would occur if the present arrangements continued.

Similarly, the incentives to use embedded generation for peak lopping are significantly reduced, effectively changing the commercial arrangements for these sites, some of which have been constructed with this role in mind. As the triad periods are not known in advance, but are largely dependent on external factors such as weather conditions there is a continuing incentive to monitor system demand and to hit the likely peaks. Consequently, peaking plant presently runs for at least the 20-30 periods that are likely to be triads. This proposal will mean that to obtain a similar benefit this plant will have to run for all 450 periods, displacing potentially more efficient plant to the detriment of the environment.

Furthermore, the proposal to implement these proposals from 1<sup>st</sup> April 2003 disadvantages users who have already made contracts for winter 2003/4 on the basis that there would be no fundamental revision to the charging methodology. If this proposal is accepted, it should not come into force until 1 April 2004."

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## APPENDIX 2 – RESPONSES TO MODIFICATION PROPOSAL - BY NON-CUSC PARTIES

### Response from Air Products

"Air Products is an industrial gases and chemicals manufacturer with sites in the UK consuming about 1TWh of electricity annually. This proposed change to TNUoS charging would result in a significant increase in our costs, and in my opinion an increase in NGC costs with no benefits to the system. The only beneficiaries will be the operators of the interconnector who will be able to export at the system peaks for much reduced cost and the non half-hourly sector who are the main contributors to the peak. This seems rather perverse.

I fail to understand how the proposal better meets your licence obligations. Condition C7C says that NGC shall not make charges which unduly discriminate between classes of customers. By your own calculation you expect half-hourly metered customers to pay £9million more and consequently non half-hourly to pay £9 million less. This clearly discriminates against the industrial customer who has a steady load in favour of customers with peaky winter load. There is no justification for this cross subsidy, in fact a case could be made for the reverse approach with peaky load penalised. You imply that there is currently discrimination between half hourly customers i.e. between load managers and non load managers. This is not correct, as every half-hourly customers has the opportunity to load manage to try to avoid the triads if they so wish. If a chemical process does not lend itself to load management then this is true for all operators of that process, and so all competitors in the same region currently have a level playing field.

Your calculations appear to assume that load management by half-hourly customers will continue with the new tariff. This will not be the case for my company (nor I suspect most of industry) as we would now need to shutdown plant 80 times for 3 hours instead of 20 to 25 times for 1 hour to gain the same benefit. Even then we will pay 8 to 10% more for our remaining load because of the proposed increase in charges. Each shutdown has a cost in labour and lost production as well as re-start risk. The implication that certainty on charges will encourage more load management is clearly wrong, as half-hourly customers able to load manage at the triads already do so if the benefit outweighs the cost. This proposal only increases the cost significantly for the same benefit. If certainty was really required, this can be achieved now under the current charging mechanism, as load management for all the winter peaks will obviously include the triads.

The opportunity to enter into a Balancing Services contract to help NGC manage the peak might be of interest to my company, but no details are given e.g. how would this interact with standing reserve or frequency response contracts. The triad avoidance system is simple and totally voluntary, whereas a balancing service contract would be mandatory probably with penalties, so would be less attractive. Currently we undeclare our availability for ancillary services if we decide to reduce load during the high triad warning times, the decision being taken on a weekly and sometimes daily basis dependent on production constraints. I would expect we would lose this flexibility and also would have to undeclare all winter peaks to be available for peak reduction, with subsequent loss of over 200hr availability revenue. So we would seek more compensation than afforded by triad avoidance to enter into such a contract, which may not be of interest to NGC. Any peak reduction contracts will be an additional cost to NGC, which I understand will not be funded from the TNUoS revenue as it is intended to be cost neutral. How is this extra cost justified?

Have you modelled the likely scenario that at the system peak the interconnector exports 2GW (potentially a 4GW swing) and industry does not load manage? This could easily add over 10% to the system peak and must have transmission cost implications. You assume that load management not notified to NGC is only 400MW, but my company alone represents over 10% of that figure, so I would be surprised if this was correct. Currently the load causing the system peaks pays for this cost, but under this proposal non half-hourly will get a reduction and interconnector export will pay a diluted p/kWh charge which does not reflect their cost on the system unless they export for all winter peak periods, which I think is unlikely. In fact, it would be possible for the interconnector to export at just the system peaks and import for the remaining winter peak periods and end up with a very small charge indeed. Apart from the increase in system cost, this increased peak demand will likely increase peak wholesale commodity prices. The loser will be the consumer.

I don't believe the case is made that the proposed new charging method will better meet your objectives. Most industrial users have the TNUoS charge as a pass through and suppliers compete on energy price and other services, such as load management or a triad warning service. Demand users do not want a more predictable charge if that charge is going to be higher. Demand users that currently load shed at about 20 peaks to avoid the triads are keeping the transmission costs down for everybody and are not being subsidised. Suppliers already offer STOD (seasonal time of day) tariffs with winter peak periods the most expensive, so the incentive to reduce load during these times is already available. This proposal will not encourage any more load management, in fact the reverse.

I hope that NGC will think again, or OFGEM will veto this proposal. It will only add cost with no benefit to the industrial consumer."

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### **Response from ARA**

"We have been advised by the Energy Information Centre that representations should be made to you in respect of the above noted proposal.

As a large energy user, we have been successfully managing the current TRIAD system for many years as part of our day to day cost control. We are therefore naturally very concerned that any proposal to amend the current system may have a detrimental effect on the costs incurred by our Company.

From the information forwarded to us by the EIC we understand that the current TRIAD charging basis is to be replaced by an average winter peak demand charge. EIC have indicated that this could result in significant increases in costs.

We wish to place on record our strong objection to any proposal to introduce a change which may result in increased costs to our operations."

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### **Response from AvestaPolarit Ltd**

"We wish to respond to National Grid's current consultation which proposes to replace, for all half hourly metered electricity customers, the current "triad" charging methodology with a new charging methodology based on a winter peak "capacity" proxy demand. Our response is as a large Industrial & Commercial electricity customer / consumer, with a total annual electricity consumption of approximately 0.45 TWh pa.

We do not support National Grid's modification proposal set out in UOSCM-M-08.

The reasons for our opposition to National Grid's proposals are:-

1. Under National Grids current "triad" charging methodology we have actively reduced our electricity demand at times of anticipated system peak demand, because the extent of load management required to avoid anticipated ""triads" has been limited to approximately 30 hours each winter. Under National Grid's proposed new methodology, we do not anticipate reducing our electricity demand to any significant extent at times of system peak demand as the period for load management would be extended to approximately 480 half hours each winter [1600-1900, Mondays-Fridays (excluding Bank Holidays), November - February inclusive]. We expect that many other Industrial & Commercial customers will also decline to reduce their electricity demand at times of system peak demand for similar reasons, therefore security of supply will be adversely effected by National Grids proposals.
2. Under the National Grid proposals for a new charging methodology, charges for NGC zone 3 (Yorkshire) for 2002/3 would be £5.54/kW rather than £4.85/kW. This is an increase of 14.2%. National Grid's proposals will result in price increases for Industrial & Commercial customers, offset by price reductions for domestic consumers. It cannot be sensible for National Grid to reduce TNUoS charges for domestic consumers - when they are the principal cause of winter peak demand - and Industrial & Commercial customers at the same time will suffer price increases.

AvestaPolarit is 'a major international stainless steel company, with production plants at sites in UK, Sweden, Finland and the USA. We export our finished products globally but particularly into Western Europe and like other heavy manufacturing industries in the UK, we currently face a double challenge in the form of an adverse exchange rate situation and increasing low cost international competitors.

Electricity is a major input in the manufacture of stainless steel, and we have always sought to actively manage our consumption under the existing "triad" charging methodology. Any increases in these key costs only weaken the competitive position of our UK based sites and will act to discourage any further investment in UK, in favour of our sister sites in Scandinavia.

Again we must re-state our objection to National Grid's modification proposal as set out in UoSCM-M-08."

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## **Response from BCA**

"Thank you for the opportunity to respond to your consultation. The British Cement Association (BCA) is the trade and research organisation that represents the interests of the United Kingdom's cement industry in its relations with Her Majesty's Government, the European Union and relevant organisations in the United Kingdom. The members of the BCA (Lafarge Cement, Buxton Lime Industries, Castle Cement and Rugby Cement) are the major domestic manufacturers of Portland cement producing over 90% of the cement sold in the UK.

The proposed changes to replace the current Transmission Charging arrangements (Triads) with a Winter Peak Period (WPP) average would have a profound impact upon our members: 1) increasing their costs significantly, 2) whilst failing to deliver improved competition and also 3) have a negative environmental impact.

We also have deep reservations about the way that this consultation has been conducted.

**1) Cost increases:** By load-managing their demand, our members currently materially assist the National Grid by reducing the grid-load during periods when it is under maximum load. The proposed new system, however, would penalise our members, who are able to load-manage over short periods at relatively short notice.

The cement manufacturing process is such that our members simply cannot afford to interrupt supply for more regular and longer periods, as it would have a significant and detrimental impact on production output. As a consequence winter load averages would increase, and with it the costs of electricity to the industry, rising by anything up to up to 40% for each of our members I these times. The total impact on the industry sector could be an increase of £M of additional costs for no benefit to themselves or the National interest.

This would be very damaging to the competitiveness of the cement industry, as well as the downstream concrete and UK construction industries.

**2) Anti competitive:** Despite the contention in the consultation document, it is difficult to see how the proposed revision would “..facilitate effective competition...”. On the contrary, the proposals would increase both the charges and the capacity of the current load managers, which in turn will create a greater strain on the network, and will certainly not improve competition for electricity supply.

Manufacturing in the UK is under many pressures, while some of the largest contributors providing load management support to the NGC, such as cement, currently come from this sector. The framework that you are proposing would impact this sector the hardest.

**3) Polluter Pays:** It appears that the revised arrangement would also go against the principals supporting NETA that the polluter should pay. Indeed, the proposed system would transfer cost benefits from those who manage their loads to those creating peaks.

Finally, we also have significant reservations about the way in which this consultation has been carried out. Our members do not deal directly with NGC, but with their electricity supply company. NGC has a monopolistic position as carrier and a vested interest in the proposed changes. Therefore:

- BCA members believe it should be the regulator, Offgen, who should be carrying out the consultation exercise, and
- The consultation should then follow the guidelines laid down by Government, particularly over the length of time available to respond.

In short the BCA and its members see no benefit in competition or environmental performance, only increases in costs to industry in this proposal. Therefore to preserve competition and maintain environmental benefits, we should like to see the continuation of the present system.

We will be forwarding a copy of our response to the Rt Hon Patricia Hewitt MP, Secretary of State at the DTI and her colleague Brian Wilson MP the Minister of State for Energy and Construction, as we believe this proposal, as well as having a detrimental impact on the cement industry, to be very damaging to UK competitiveness, energy strategy and construction as a whole."

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### **Response from Castings**

"We are a large iron foundry with a 13 MVA maximum load, 48 million kWh annual consumption and 50-60% load factor. Currently the NGC TUOS charge is passed through to us and we load manage for the likely half hour Triad periods. Typically we reduce our load from 6-9 MVA to approx. 3-4 MVA. It is not feasible for us to take this action for more than one half hour period per day. I enclose details of our typical half hour consumption.

Your proposal for charges based on average demand between 16:00 and 19:00 will increase our costs significantly. Using the figures I have provided I expect our costs to rise by: 6439/3389 i.e. +90%

Plus it is expected that your rate per KVA of demand will increase by:  $(6439/3389) * 1.09 = 2.07$

i.e. I expect our TUOS charge to more than double.

I believe this is unjust and counter-productive for NGC.

1. We have little scope for reducing our average demand 16:00 to 19:00.
2. We currently reduce our demand at the times of highest demand on the grid. This is beneficial to NGC. We will not do this under the proposed new system.
3. We plan our production many hours in advance in order to reduce our demand at likely TRIAD times i.e. 17:00 - 17:30. This benefits Castings plc by reducing the TUOS charges and benefits NGC by reducing stress on the grid at the time of maximum load.
4. The new system will discriminate against consumers with a high load factor. This does not seem just.

We urge you to consider the above and to propose a more equitable charging scheme."

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### **Response from Castle Cement**

"Thank you for the opportunity to comment on the consultation document to replace the triad charging principles with a new winter peak charge for half hourly metered demand customers.

Castle Cement Limited is part of the HeidelbergCement Group of Companies which operates three major cement production facilities in the UK with a collective maximum demand of 75 MW. Since the introduction of liberalised energy markets in the UK in 1990 we have been consistent and enthusiastic participants in electricity markets through the Company's load management activities. These include Reserve, Frequency Response, Demand Side Bidding and Triad Avoidance activities.

Your proposal to replace the current Transmission Charging arrangements (Triads) with a Winter Peak Period (WPP) average will significantly increase our transmission costs as detailed in the attached spreadsheet by over 50% when the proposed increase in zonal charges are applied.

Like most energy intensive industrial companies Castle can make available a limited amount of load, management for a short duration of time. Under the Triad arrangements 20 hours of load management could reasonably be accommodated without impacting production output. The proposed Winter Peak Arrangements will require 250 hours of load management to maintain the same transmission costs. This consistent level of load reduction is not possible without production output being seriously affected. As a result our winter load averages will actually increase in kilowatt terms and we suspect the same will apply to other load managing companies.

It is difficult to see what NGC will achieve by this change of methodology as those consumers who can make an impact at peak period will be disincentivised to participate. By assessing average peak loads over a three hours weekday afternoon the proposed methodology will actually increase the national peaks and transfer benefits to those consumers who create short term peaks during the proposed three hour periods. In our view the majority of industrial & commercial customers will, at best, continue to be cost neutral with traditional load managing companies subjected to increased costs.

The proposed arrangement does not appear to us to fulfil one of the underlying cornerstones of NETA, that of the "Polluter Pays Principle." We would contend that the re-distribution of costs will actually benefit peak loads and in particular predictable loads which peak for a single hour during the three hour winter peak period. On this principle alone the proposal does not achieve the relevant objective set out in your consultation document as it transfers cost benefits away from those who can manage their peaks to those who create them.

Recent experiences in the market place would also suggest that peak power shortages are a real danger with so much mothballed generating plant unavailable. NGC have been issuing Notifications of Insufficient Margin (NISMs) and at a time of the year when temperatures are quite mild. It is our view that NGC should be encouraging load management activities rather than discouraging them. The proposed changes to the charging methodology will in our view discourage dedicated load management activity.

We would urge you to reconsider the new charging methodology or at a minimum conduct further detailed analysis throughout 2003-04 financial year before coming to a definite opinion.

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### **Response from Chemical Industry Association**

"The chemical industry is the largest user of electricity in the manufacturing sector, accounting for approximately 6% of all UK electricity supply. The chemicals sector uses some 23000GWh annually, the bulk of which is purchased from electricity supply companies at a cost greater than £400m. We therefore welcome the opportunity to respond to this consultation.

Since the publication of the consultation in early November 2002, CIA has carried out a survey of its membership in order to understand the extent and nature of the current demand-side involvement in the triad system of signals and load management. In the many responses it has have received, mostly from the energy-intensive part of the chemicals sector, there is little, or no support, for the changes proposed. CIA does not believe that the proposed changes will represent an improvement on the present system, and is unlikely to lead to NGC being better able to meet its licence objectives.

In the responses we have received from those players who currently respond to the triad signal shed load in the order of 20 times in order to capture the triad peak times. When questioned on whether they would be prepared to shed load daily throughout the winter (in response to a new signal) the majority said they would not be prepared to do so, due to the nature of their chemical production processes. Most judge that they would clearly pass the point where the opportunity costs of lost production outweigh the financial gains of a reduced energy bill. When asked whether they would be prepared to shed load any more frequently than at present, a very small minority indicated some scope to do so, but the majority indicated that they are presently close to the limit of the demand management that their process allows. From the results of this rapid survey, we estimate that CIA members contribute at least 300MW of demand side management across 20 peak periods; and that, if the proposals were implemented as set-out, there would be a substantial decrease in the amount of load shed at peak times. A corollary of this is that stress on NGC's system would be greater at peak times, which in turn will increase balancing costs. These additional costs will inevitably be passed back to customers, given NGC's position as a regulated monopoly. We believe this will serve against better meeting on of NGC's key licence obligations, which requires the system to be run in an efficient manner. We also believe that the increased stress on the system might be further affected by the new system's likely encouragement of the England-France interconnector to increase exports at times of system peak, which, we believe, might allow the possibility of increasing system peaks by a further 4GW.

There also appears to be evidence that the proposed changes will introduce a cross-subsidy from half-hourly-metered customers to non-half-hourly metered-customers. It has been suggested in recent documentation that the shift in revenues may be of the order of £9million. Given that a substantial driver of capital costs for NGC is the stress on the system at peak times, it is difficult to see how such a shift could be said to lead to more cost-reflective pricing. Indeed, NGC has previously stated its view (in a conclusions paper from February 2002) that the present system is a cost-reflective and non-discriminatory means of structuring demand-side incentives.

We also believe that the modifications would not encourage greater competition in supply, but are more likely to affect it adversely. One method by which electricity suppliers can distinguish themselves, at present, is in the way that they offer to deal with load management on behalf of their clients. If a new system were to make load management unattractive to the point where there was little interest in it, then it follows that there would be one less aspect of a total supply package on which suppliers could compete when tendering for an industrial customer's business.

In summary, we are disappointed by the prospect of the abandonment of the current triad arrangements. This system remains one of the few areas where there is a simple mechanism, by which demand-side players can enter the market. Though the possibility of a balancing services contract might be attractive to some of our members, there are also number of reasons why it would be less favourable for many. For some of the larger chemical companies, interactions with existing

contracts for balancing services, such as standing reserve or frequency response, may preclude this as an alternative route. A balancing services route would be a contractual arrangement with obligations and penalties, instead of a voluntary system. Because of the negative interactions with other balancing services contract, it is likely that our members would offer load reduction services at a higher price than the equivalent charge reduction through the triad mechanism. This would make such a bi-lateral form of load-shedding relatively more expensive.

We re-iterate what we see as the clear benefits of the current approach. The triad signal encourages load reduction at times of network congestion and end-users are rewarded by reduction in the TNUoS charge, which is based on kW capacity. The system is simple and our members can easily respond to it without being involved in contractual negotiations or undue administration. We strongly urge NGC to re-consider the options set-out and to question rigorously whether they would lead to it better meeting its licence obligations."

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## **Response from Corus Group plc**

### **1. "Summary**

We believe the proposal is flawed because:-

- NGC's obligations and objectives are not enhanced, but adversely affected
- competition in supply will reduce
  - greater risk to security of supply
  - system costs could increase and reinforcement may be required
  - discriminates further against HH market in favour of non-HH consumers
- the need for change has not been justified
- many NGC arguments contradict its recent statements
- Balancing Services Agreements are not an appropriate substitute
- the impact on HH demand, especially for current Triad avoiders, will be significant
- it creates an unhedgeable risk for HH customers
- it produces a perverse pricing signal.

### **2. NGC Obligations / Objectives**

NGC has a number of statutory and licence obligations which are relevant to this issue in addition to those emphasised in the consultation paper relating to objectives for use-of-system charging methodology. There are obligations concerning an efficient and economical system and the promotion of security of supply (through the Grid Code), as well as to facilitate competition. It is our belief that NGC's proposals will fail the test of all its obligations.

(a) Because of the move to charging for use-of-system from 3 to around 480 half hours, most existing HH consumers who currently load manage for 25/30 hours per winter to avoid the Triads will no longer do so for such an extended period. Certainly this will be the case for Corus. The result will be that peak demand on the system (the real peak, not the "proxy" being proposed by NGC) will increase by at least 1.5 GW. In this respect we believe NGC has seriously underestimated the amount of Triad avoidance by relating it to "notified" demand reductions. Secondly, making it easier to export 2 GW through the Interconnector to France rather than import 2 GW at times of England & Wales system peak demand could reduce by a net 4 GW the supply / demand balance. It is therefore possible that the capacity margin between generation and demand could fall by at least 5.5 GW at times of system peak. This will inevitably increase the probability of there being insufficient generation to meet

demand and therefore security of supply will be reduced. Our concerns about security of supply are reinforced by NGC's recent declaration of a "NISM" on a mild day in November.

A further consequence of this will be need to reinforce the system (and charge customers for it, no doubt). We do not believe this to be economical or efficient. Surely a key driver for a network owner is to improve the system load factor. By increasing the peak demand on the system, NGC's system load factor will fall, not increase.

(b) Competition in supply will be threatened by this proposal. Existing suppliers can and do compete on the load management terms they offer end-users to capture the Triads. Corus is a very active player in the contract market and the provision of acceptable load management terms is critical to our choice of suppliers. The demise of the Triads will kill off existing load management, currently the main area of demand side participation.

(c) Turning to the issue of discrimination, there is currently no discrimination between individual HH customers as all users can, if they wish, take steps to avoid demand at Triad peak (Triad advisory systems are generally available from suppliers). Indeed NGC supports this in its own Summary and Conclusions paper on Demand Charging for the Interconnector (28/8/02), "*National Grid is satisfied, therefore, that Triad method of demand TNUoS charging is one cost reflective method of reflecting peak demand conditions and its application to all HH metered demand users is non-discriminatory*".

In terms of discrimination between the HH and the non HH market, the fundamental issue of who creates the peak demand on the system needs to be considered. Arguably, those consumers who create the peak should pay for it – the polluter pays principle – not those users whose individual demand is not seasonally related. There is no reason why the latter category of user should pay for any demand taken through the peak, when they are not responsible for causing it. As the Triad system at least gives HH users the opportunity to avoid TNUoS charges, HH users such as Corus have been prepared to tolerate the discrimination in favour of non HH demand. However, the changes now being proposed mean that HH demand will now pick up an increased share of the overall bill for demand, thereby exacerbating the cross subsidy that already exists.

If NGC were genuinely concerned about discriminatory issues, why is it not focusing on the blatant discrimination arising from demand paying 73% of charges, compared with 27% for generation ?

### **3. The need for change?**

It is not at all clear from the consultation what the problem is with the current system of charging and why a change, which will have adverse consequences for consumers, is needed.

The "alleged" problem stems from the desire on the part of some Interconnector users to overcome their "fear of Triads" which, according to them, prevents efficient arbitrage between E&W and French markets. Even if this were valid, we do not believe it sufficient reason to change the present arrangements for mainstream demand. It is interesting to note NGC's own comment in the summary and conclusions document of 28/8/02. On this issue: "*We do not believe this [Triad]*

*method has had a restriction on trade in European power markets. The methodology provides a signal to not take demand at periods of peak demand where costs of investment and constraints can occur. This has been effective in delivering load management and in encouraging Interconnector users to avoid exporting in Triad periods, hence reducing the costs of investment and constraints seen on the transmission system.”*

One wonders whether NGC actually believes in what it is now proposing when one reads the Charging Review Initial Conclusions Document (October 2002) as well as the 28/8/02 document previously referred to. In the Charging Review, NGC says *“the most significant driver of transmission system reinforcement costs is peak demand conditions.”* On the next page NGC states *“The absence of this [Triad avoidance] demand at peak times has resulted in reduced system costs, as the system is not required to support this demand at peak times. It has also resulted in reduced prices in the energy market, due to reduced demand at peak.”*

Clearly the definition of peak is the heart of this issue and it is questionable from NGC’s documentation that they are sure what it is. Their desire to define the winter peak period as 1600-1900, Mon-Fri, Nov-Feb is in stark contrast to the statements in the Charging Review – *“Ideally, whatever method is chosen should represent the peak half hour, but should smooth out the effects of extreme weather conditions and indeed the Triad method achieves this to a certain extent.”* Also, *“clearly the lower the number of periods chosen, the greater the proportion of system peak that is represented by the average, with ultimately a single peak representing 100%.”* Our view is that the peak is the highest instantaneous demand on the system at any time but for practical purposes, concerned with metering, the highest single half hour is the most appropriate for charging.

Linked with definition of peak is the issue of ex-ante versus ex-post. It is axiomatic that to capture the system peak half-hour all potential half hours have to be covered by an ex-ante system but this is not the case for ex-post charging. One of the arguments NGC advances in favour of ex ante charges is the predictability of charges. This is not a relevant objective in itself but appears to be cited as facilitating competition. As we have argued earlier, we believe the opposite to be the case. Moreover, retention of the present ex-post approach better reflects, as far as reasonably practicable, the costs incurred by NGC in its Transmission business. Indeed NGC says in the Charging Review *“The ex ante method discussed [the present proposal] is less representative of system and ACS peak than the Triad and other ex post methods.”* NGC goes on to say that *“the ex ante method should be more cost reflective in attributing charges to those that cause them.”* Yet NGC’s proposals have the opposite effect by reducing charges to the non HH market, the principal cause of the peak.

In respect of the second justification listed in Section 4 of the Consultation Document, NGC cites a benefit as *“reducing the potential for cross-subsidisation between HH metered demand customers.”*

Again, NGC’s arguments in favour of change sit uneasily alongside its own statement in the 28/8/02 document *“...given that the current Triad methodology can be demonstrated to be reflective of the costs incurred and not unduly discriminatory between parties.”*

The third justification advanced by NGC talks about the opportunity for suppliers *“to offer tariffs to all HH demand which encourage load management over the winter*

*peak period*". As the incentive to offer load management tariffs would all but disappear if the Triads were abolished, a move to ex-ante charging over 480 half hours will have entirely the opposite effect.

#### **4. Balancing Services Agreements**

NGC is suggesting that the use of Balancing Services Agreements could replace Triad avoidance load management. Along with other users we are sceptical of the benefit of these Balancing Services Agreements and suspect the take-up will be minimal. The present Triad avoidance system is a tried and tested system, well understood by users. They can decide in the light of their operational requirement and order books etc whether or not to cut demand right up to real time. NGC's suggestion of Balancing Services Agreements would require tenders by November for the winter commencing 12 months later (although special arrangements for 2003/4 will be needed if the new WPP proposal is adopted). This is way too far ahead for manufacturers, given the uncertain world they live in, to be in a position to offer meaningful terms. Moreover, there will be considerably less price discovery than the present arrangements, and the transaction costs (including users having to develop bidding strategies for a non-core activity) will be higher. NGC is only likely to be interested in users who can shed over 3MW of load, which will rule out a considerable number of smaller HH demand sites that currently attempt to avoid Triads. For the remainder, there will be a need to establish a non load managed reference demand to measure the load reduction. This will not be a straight forward process given the number of sites above 3MW that currently load manage. The beauty of the present system is its simplicity in that charges are levied on the actual demand through users' meters, not the load drop.

#### **5. Impact**

(a) The biggest impact on customers will be felt by those who currently load manage to avoid the Triads and who will suffer entirely unpredictable cost increases as a result. We estimate the cost to Corus will be significant (with the biggest impact on our South Wales works) and in excess of our current bill for Climate Change Levy on electricity. Other non load managing HH demand will suffer as a result of higher £ per kW rates but the scale of this will depend on the extent individual demands are weather related. The irony is that the domestic sector, the principal cause of winter peak demand, will be charged less, although in practice consumers may not see the benefit as suppliers have been reluctant to pass on cost savings. These users, on the other hand, would be exposed to a reduction in the security of supply. The clear pricing signal to end users will be "taking electricity at times of system peak is not to be discouraged". This is perverse.

(b) If users no longer load manage, in effect they will be consuming more electricity at times of system peak when electrical losses are proportionately greater than at times of lower demand. Is this compatible with HMG's environmental targets and concerns over security of supply ?

(c) Most HH demand is embedded in distribution systems. The loss of load management at peak times could effect security and investment in these systems.

#### **6. Timing**

Leaving aside all the arguments we have advanced for the rejection of NGC's proposal, we fail to understand what the urgency is to implement changes from April 2003 when a number of other inter-related issues are not likely to be in place by then.

Many HH customers, as we have said, will be faced with unanticipated cost increases. This risk is unhedgeable and therefore economically inefficient. This has a negative effect on competition. It is not unusual for regulatory changes which increase costs to market players to be accompanied by phasing - NGC's own move to ICRP is a good example. Why has no mention been made of this?

## **7. Alternatives**

Apart from the status quo for which we have seen no arguments to justify change, there are clearly a large number of alternatives to NGC's current proposal. On an ex-ante basis, as NGC would want to be almost certain it has captured the very highest peaks, reducing the evening period by, say, an hour or by excluding Fridays still leaves too great a total period over the winter for customers to load manage. Ex-post, we believe that measuring demand over the single half hour of peak demand – the true peak – would be an appropriate change. However, whatever NGC thinks is a possible alternative, this must be carefully thought through and the opportunity given for all to express their views in a further consultation. It will be an abuse of process if NGC proposes an alternative to go to OFGEM without receiving views on it specifically. In any event, any alternative should not be considered for implementation before 2004/5 at the earliest, if at all."

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### **Response from EIC**

"EIC represents industrial and commercial energy buyers at all levels from energy intensive industry to SMEs. It is EIC's opinion that the proposed modification goes too far, penalising load managing energy users without bringing significant benefit to the rest of the system.

In particular we note that:

- The cumulative benefits to the system of smaller load managers will be lost. The TRIAD system gave smaller players a simple cost-benefit trade off for participating in load management at peak times which will be lost under the proposals.
- The penalty on large load managers unduly discriminates against this class of customer. Typical additional transmission costs for large load managers will be in the tens of thousands of pounds, or a 40-60 per cent increase. Benefits to non load managing sites will be negligible.

EIC has been established since 1975 and provides utilities market information and support to business energy users. EIC is a totally independent organisation, with a client base of over 900 contacts, covering over 40 per cent of the FTSE 100, including industrial, commercial, public services and both local and central government organisations. Our client base represents over 25,000 sites and more than 20 per cent of the utilities market in the UK.

I hope that you will take our concerns into full consideration and would be happy to discuss further any of the points raised."

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### **Response from EIUG**

"NGC's proposal for a new winter peak charging methodology to replace the current Triad regime is a matter of great importance to EIUG, which represents the industrial

sectors in which the bulk of existing demand response for Triad avoidance occurs. Since the consultation document was published in November, EIUG has been involved in extensive dialogue with NGC, suppliers, energywatch and other customer groups in order that the implications of this proposal for customers generally, and for peak system demand as a whole, be fully understood by all concerned. The comments below comprise EIUG's considered response to the consultation and outline why, in our view, the proposal should be rejected.

In response to NGC's proposal, EIUG conducted a survey of its members in order to better understand the impact of a change to the current Triad regime. The survey revealed around 1400 MW of active industrial load management for Triad avoidance within the industrial sectors EIUG represents. This figure relates purely to the specifically identified sites for which data could be obtained in the limited time available, and therefore under-estimates total response from the half-hourly market. It would be reasonable to suppose that the number could easily exceed 1500 MW when the rest of the half-hourly market is included. On the other hand, some members surveyed said they may be able to load manage through the proposed winter period, but to a greatly reduced extent - most others, including some of the largest demand sites, would be unable to load manage over an entire winter period. Taking all these factors into account, we believe the overall effect of NGC's proposal would be to increase industrial and commercial demand at peak times by 1400-1500 MW. NGC's assumption of 800 MW demand response for Triad avoidance, referred to in their consultation document, is therefore significantly under-estimated.

The proposed charging scheme would also reduce the current incentive on the operators of the French interconnector to avoid exporting at times of peak demand to avoid potential triad charges. It would therefore not only have the unfortunate effect of causing load management to reduce by up to 1.5 GW, as discussed above, but also to increase the risk of the interconnector exporting rather than importing at times of peak demand, resulting in an additional 4 GW effect (reducing potential supply and increasing demand by 2 GW respectively). These two factors could reduce the margin of peak supply over demand by over 5 GW. The cost to NGC of operating and balancing a system with enhanced peak demand must necessarily be higher than at present - a cost ultimately borne by customers. This proposal would therefore be likely to increase NGC's costs, and hence run counter to the requirement for it to be efficient and economical in its operations.

EIUG believes this proposal would adversely affect competition in supply. Suppliers are currently able to compete on the load management terms they offer to end users. Clearly, if the amount of load management falls significantly, so will competition in providing these services.

We understand that the effect of the proposal would be to alter the balance of costs shared between half-hourly metered (including industrial) and non-half hourly metered (largely domestic) customers. It is the latter which is primarily responsible for demand peaks, yet costs to the former - whose loads are more stable - would rise under the proposed charging scheme. The onus should be on those making the proposal to demonstrate that the resulting cost allocation more appropriately reflects the origin of those costs. Yet this case has not been made - indeed, in our view, it cannot be made, as such a change would result in a less efficient, inequitable cost allocation. We note that as recently as August this year, in its Summary and Conclusions paper on Demand Charging for the Interconnector, NGC agreed that the current Triad-based methodology was cost-reflective and non-discriminatory in its application to all half hourly metered demand users.

Even if the objections noted above did not apply, it would not be fair or practical to make a radical change in the charging system in 2003. Some customers will already have fixed rates for the winter of 2003/04, so a major change could not reasonably be implemented before 2004/05 at the earliest."

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### **Response from Energywatch**

"Thank you for the opportunity to respond to your proposal for modifying NGC's use of system charging methodology. energywatch is of the view that it has not been established that the proposed modification would better meet the relevant objectives. Therefore, we consider that the modification should not be implemented. We have discussed the proposal with a number of half-hourly consumers that are members of the Energy Intensive Users Group (EIUG) who are also of the opinion that the proposal should not be implemented.

The half-hourly consumers that we have spoken to have suggested that the level of load management referred to in the consultation is significantly underestimated. We understand half-hourly consumers, through the EIUG, will be providing figures to NGC to support this statement. energywatch considers that the extent of the underestimation could have a significant impact on the proposed modification. We would urge NGC to reconsider its proposed modification in light of any evidence half-hourly consumers are able to provide.

energywatch is concerned that the incentive to load manage will be diminished under the proposed modification. Half-hourly consumers that currently load manage have advised us that they will be unable to load manage across the whole winter peak. energywatch seeks clarification from NGC on the potential impact on transmission system investment should the half-hourly consumers that currently load manage cease to or reduce the extent to which they load manage.

energywatch is also concerned that the proposed modification will not send the appropriate signals to interconnector users during the peak. We consider that these signals should be considered further.

### **Conclusion**

If there are legitimate concerns regarding the current charging methodology, energywatch does not consider that it has been established that the proposed modification is the appropriate way to address such concerns. energywatch does not consider that it has been established that the proposed modification better achieves the relevant objectives. Consequently, we do not consider that the modification should be implemented."

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### **Response from Kodak**

"By eliminating the TRIAD system you are negatively impacting the embedded generators who are actually helping the Grid during the times of Peak Demand. Also, by eliminating the revenue from the TRIADS I feel that this will push the NGC towards managing/financing the grid based on average loads. Surely this will eventually impact the grid in such a way that it will no longer be able to cope with the peak demands, which is how I thought the money was currently invested.

It is suggested though, that this shortfall shall be met by increasing the transmission costs by 8-10%. There is now a double-edged, negative effect. There is no longer a benefit from exporting to the grid, and also there will be an increase in transmission charges for any imported electricity. Embedded generators will no longer be incentivised to export to their maximum, which actually means that the grid will become even more heavily loaded during the peak demands. This is not a benefit!

As far as Kodak Ltd is concerned the proposed changes have a negative effect on our business. Our main site is a CHP site and is already battling the effects of NETA. The demise of the TRIAD system will negatively impact our costs significantly. Because we also load manage on this site we will be required to minimise our load throughout **all** the winter peak periods as opposed to the less frequent TRIADS. This will have the knock on effect of having to run equipment for periods of time greater than we would have to under the current TRIAD system. We would also be starting and stopping equipment more frequently to minimise the load. As you can imagine this has a detrimental impact on equipment life, and again increases our maintenance costs.

There is also as a further reaching environmental impact. As a company who is constantly under pressure to meet and better costs year on year, we would expect to manage our load so that we minimise our import during these peak periods. This will mean burning more fuel to run our equipment which will in turn, result in an increase in emissions. As an ISO 14001 company who prides itself in the reduction of emissions year on year this is something that we would regret whole-heartedly. It certainly doesn't encourage the movement towards the UK's emission goals. And as I said before, if the embedded generator isn't encouraged to export as much as under the TRIAD system, then who will make up the shortfall, the coal fired power plants, who pollute far greater than a gas fired CHP plant.

As you can see Kodak and I are firmly against the proposed changes to the charging system. I hope you take our comments on board in reaching the decision on the future of the charging system."

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### **Response from Lafarge Cement (UK)**

"Lafarge Cement (UK), otherwise known as Blue Circle, is a large industrial user of electricity with an annual UK consumption of around 1TWh.

We write to express serious concern at the content of National Grid's document UoSCMM08: "Proposal for new winter peak 'capacity' proxy of half-hourly metered demand TNUoS charges".

Implementation of this proposal will increase our current grid charges by 40W This is an enormous increase on our electricity costs.

There will be an adverse competitive impact on the costs of our UK manufacturing network supplying a highly competitive market in which domestically made and imported cement is sold. We, along with other major industrial customers will be unfairly penalised, and once again British Industry will be disadvantaged in this Global Market!

National grid's own data shows that half-hourly demand customers comprise only one third of peak load, but the proposal will result in us paying a total of around £9

million more, and non-half-hourly demand customers paying around £9 million less. This is unfair discrimination against half-hourly demand customers, a violation of one of National Grid's key principles "Not to discriminate against customers or groups of customers".

We have provided an invaluable service to the National Grid by load-managing our consumption, reducing the load on the grid during periods when the grid is under maximum load. The new system will penalise large energy users like ourselves who have the ability to load-manage over short periods at reasonably short notice. This proposal removes the cost benefit incentive to load-manage and consequently National Grid will be left to face higher demand at peak times, and will therefore need to instruct more peaking generation, or provide balancing services. Either of these actions will result in increased market costs, and this clearly does not fit with National Grid's key principle "To facilitate effective competition."

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### Response from MEUC

"The Major Energy Users' Council (MEUC), which represents a broad range of commercial and industrial organisations, wishes to express its concerns over the National Grid Company's proposal to change the basis of Transmission Network Use of system Charging from April 2003 and would seek that the proposal be withdrawn. Your consultation document purports to justify the proposed changes under a number of headings, for instance by,

i) *"providing a methodology which results in more predictable charges for Demand Users"*

It is difficult to see how the proposal can be justified for major energy users who have willingly contributed to system security by load managing and accepted the risks that Triads have entailed. Non Half Hourly consumers that do not have Triad pass through contracts still have predictable charges under the current arrangements, should they so choose. What risks there are rest with the suppliers, which are at liberty to manage them through the nature and range of contracts they hold. We appreciate that for some users, particularly interconnectors, increased predictability might be useful in their market dealing with the EdF network. However if they are exporting power at times on system peak we would argue that this could in the future contribute to security of supply problems and as such they should contribute costs accordingly. The application of Winter Peak Period (WPP) methodology to interconnectors could significantly increase their export activities at peak and at the same time reduce their cost contribution.

ii) *"better reflecting the capacity requirements of each user over the period that drives the majority of transmission costs, thus reducing the potential for cross subsidy between half hourly demand users"*.

The NGC analysis in the Initial Conclusions Report dated 5<sup>th</sup> November 2002 concludes on page 26 that "the analysis shows that no one method is clearly better than any other method" when assessing the Triad methodology with the proposed WPP proposal.

Since NGC uses the average Winter Weather Peak methodology (ACS) for system planning it therefore seems illogical that a customer's capacity requirement should be given consideration in any charging methodology. If ACS peaks define the system planning levels then surely transmission costs should be linked to the methodology

which best reflects this strategy. Figure 1 in your Initial Conclusion document suggests that 10 peak periods closely reflect the ACS peak levels followed closely by the Triad methodology.

By your own admission there is very little to gain from the proposal. As the vast majority of HH metered customers will be worse off under the proposal, even those that cannot load manage, the beneficiaries will be the Non Half Hourly (NHH) metered customers. This is quite perverse considering the unpredictable nature of much domestic and other NHH demand and their greater contribution to system peaks.

iii) *"providing Suppliers with the opportunity to offer tariffs to all half hourly metered customers which encourage load management over the winter peak periods."*

This is a completely spurious argument. Since the introduction of NETA the incentive to offer innovative tariff structures has declined dramatically. In particular the number of available tariffs providing incentives to load manage during winter peaks has reduced. The reason for this is self-evident and is not likely to change with increased generation and supply consolidation, which is reducing competition all round.

NGC states in the consultation document that it values Balancing Services Contracts but has not come up with any proposal to put to users to replace the benefit the Triad gives. The existing contracts are so complicated and incomprehensible that customers have to use an agent to tender on their behalf. As a consequence they are not an option for the majority. In any case they are not available unless 3 MW can be shed. It is fanciful to assume that suppliers, buying long, will have an incentive to provide an equivalent service for customers below the NGC threshold. Load management requires a commitment from a Company to forgo production for limited periods. It cannot do so to the extent that its costs rise or to that it loses sales and customer goodwill. Many can only offer load reduction activities for a few hours each winter - typically 20 hours in the November to February period. The introduction of Winter Peak Period methodology will actually reduce load management activity and national peak demand will increase. A move towards WPP charging will reward those who cause short duration peaks (i.e. one hour duration) between 1600 – 1900 and this is at variance with the "Polluter Pays" principle, which underpins the New Electricity Trading Arrangements.

We are not unwilling to enter into discussions on a way forward but trust that until a more suitable alternative is developed NGC will withdraw this proposal. Triad charging methodology has worked well for the last 25 years. We believe the benefit it offers for system security is considerable and provides a genuine demand side contribution to it."

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### **Response from NHS**

"Thank you for the opportunity to respond to the above consultation concerning proposed changes to the transmission charging structure. I am responding on behalf of the NHS Purchasing & Supply Agency, which is an executive agency of the Department of Health, with policy and operational responsibility for all matters concerning purchasing and supply in the NHS. Having reviewed the new proposals I would like to comment briefly on several areas where the NHS is going to be affected.

The current triad system is the only real opportunity available to half hour sites for load management, and a number of large sites in the NHS are actively load managing. At present load reduction activities are only required for a few hours each winter, however under the Winter Peak Period methodology the time periods are much longer, which will ultimately result in a reduction in load management activity.

Clearly, there will also be a financial impact from the proposed changes. Half hourly sites who load manage will find that not only will the Winter Peak Averages be higher than under the Triad system, but there will be a further increase from the higher zonal rates for transmission which are being proposed. It has been suggested that the total increase in transmission costs could be by as much as 50% or more. The zonal rate increases will also affect sites who do not load manage, as transmission costs will increase by up to 8%.

The NHS has in the region of 750 half hourly sites, so that should the impact of the proposed charging methodology mean that our overall electricity costs rise as is being suggested, the combined impact could potentially be significant. Whilst it is always necessary to evaluate current arrangements to ensure optimum efficiency, I would ask that you undertake a thorough review of the proposal and ensure that any change benefits both the industry and consumers.”